THE

TIMES AND REGISTER.

A Weekly Journal of Medicine and Surgery.

Published under the auspices of the American Medical Press Association.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

Vol. XXII. No. 18.
Whole No. 660.

NEW YORK AND PHILADELPHIA, MAY 2, 1891.

Yearly Subscription $3.00, in advance.
Single Numbers 10 cents.

Published by the Medical Press Company, Limited, 1725 Arch Street, Philadelphia, Pa.
Agents in Paris: E. Besnoe, 19 Rue Vaneau. Entered at the Philadelphia Post Office as second-class mail matter.

Notes and Items.

AN ANCIENT INVENTION.—Sawedoff: "You know Pinion, the inventor? Well, he's recently produced something quite new in breast developers. I was down there last night and he showed me a couple of working-models, Pinion has got a good thing there."

Hyssop (innocently,: "Breast developers?"

Sawedoff: "Yes, twins."

THE BALTIMORE AND OHIO RAILROAD offers the best and most desirable route from the north, east, and west, for delegates and others who contemplate attending the convention of the American Medical Association, to be held at Washington, May 5 to 8 proximo. Solid vestibuled trains, equipped with the finest Pullman sleeping cars, run through without change to Washington, from New York, Philadelphia, Pittsburgh, Columbus, Cincinnati, Chicago and St. Louis. There is no route in America as attractive as the Baltimore and Ohio in the way of scenery, of natural grandeur, and historic interest. Elsewhere in this issue instructions are given how reduced rates of fare may be secured by delegates and others who contemplate attending the convention.

CITY PRACTICE WANTED.—A physician desires to purchase a practice of $3,000 or more, in Philadelphia. Will pay fair price.
Address, C. W. P., this office.

A NEW ANO-RECTAL SPECULUM.

BY ROBERT W. MARTIN, M. D., PHILADELPHIA.

(*The Times and Register, October 5, 1889.*)

Price, $8.00. Physician's Discount, 25 per cent.

"The instrument is practically a bivalve speculum, giving the needed power of distension of the lower part of the rectal pouch, fitted with two very much shorter supplementary valves, which act effectively as retainers of the intra-anal folds, and prevent the rectal growths and folds from crowding into and blocking up the outer opening, thus giving a clear field of vision, and exposing the largest possible surface to view."

Do not fail to read our proposition at the bottom of page.*

THE MOST PERFECT ARTIFICIAL INFANT FOOD.

It goes without saying that a child, to be perfectly nourished, should be fed on healthy human milk, or its equivalent, during the nursing period, or at least until seven months of age. If a child under seven months of age **Must** be **Artificially Nourished,**

LACTO-PREPARATA

is the only Food which meets every requirement, as it is the only perfect **Artificial Human Milk** ever produced; when dissolved in luke-warm water it practically resembles human milk in *composition*, *character*, and *taste*.

It is made from pure cow's milk, contains no cereals in any form, and is treated according to the directions of **Prof. Attfield for Sterilizing Milk.**

Lacto-Preparata and **Carnrick's Food** are now put up in air-tight cans **only** and will keep perfectly.

CARNRICK'S FOOD

is composed of two-thirds of **Lacto-Preparata,** and one-third of dextrinized wheat, and is more especially intended for children from seven months to two years of age.

A PROPOSITION TO ANY PHYSICIAN.

*The flesh of all children fed **alone** on **LACTO-PREPARATA** or **CARNRICK'S FOOD** is **firm** and **solid**, because they contain the requisite amount of **albuminoid constituents.**

The flesh of all children fed alone on any other Milk Foods (containing as they do 90 to 94 per cent. of cereals), is soft and flabby, because they do not contain sufficient nitrogenous elements, and the children thus nourished will in consequence quickly collapse when attacked with any serious complaint.

We respectfully request Physicians who are prescribing these Foods to examine the flesh of the Infants and verify our statements.

We are so confident that our Foods are practically perfect as substitutes for healthy human milk that we will furnish gratis to any physician who is now prescribing other Foods or cow's milk, sufficient of our preparations to enable him to judge of their dietetic value in perfect nourishing qualities, as compared with other foods for similar purposes.

REED & CARNRICK, Manufacturing Chemists,

NEW YORK.

OUR FIVE-DOLLAR OFFERS.

We will send any one of the following combinations:

No. 1.

The Times and Register	$3.00
The Medical World	1.00
And any $2.00 Journal, Book or Instrument in America	2.00
	6.00

No. 2.

The Times and Register	$3.00
The Dietetic Gazette	1.00
And either The Brooklyn Medical Journal, The Medical Mirror, or The Therapeutic Gazette	2.00
	6.00

No. 3.

The Times and Register	$3.00
Minor Gynecological Operations. By Croom. Revised by McMurtry	1.50
Practical Electro-therapeutics. By Hutchinson	1.50
	6.00

No. 4.

The Times and Register	$3.00
The Medical World	1.00
" " " Visiting List	1.50
(The only list published which can be presented as evidence of claim in a Court of Law.)	
The Medical World Ledger of Monthly Balances	.50
	6.00

No. 5.

The Times and Register	$3.00
A Good Hypodermic Syringe	1.50
A Clinical Thermometer	1.50
(Both instruments warranted.)	
	6.00

No. 6.

The Times and Register	$3.00
The Earth Treatment. By Hewson	1.00
What to Do in Cases of Poisoning. By Murrell. Revised by Woodbury	1.00
The Self-lighting Pocket Lamp	.50
A Good Urinometer	1.00
	6.50

SPECIAL OFFER.

The Times and Register	$3.00
A good reliable Time Keeper, Waltham or Elgin movement, in nickel open-face case,	7.50
We will send the above offer for $10.00.	10.50

National Union Vaccine Co.,

Established, 1870. Incorporated, 1884.

E. L. GRIFFIN, M.D., Pres. J. PETTET, A.M., M.D., Treas.

VACCINE FARM, ENGLEWOOD, ILL.

The largest, best equipped and most complete vaccine stables on the continent, conducted under the immediate supervision of highly educated physicians and assistants, of many years practical experience in this specialty. All animals, after being used, are slaughtered and carefully examined for any indication of inoculable disease. During the past year this work has all been done under the immediate supervision of the United States Government Department of Agriculture, and their skilled veterinarians, and in no case has any animal been found suffering from tuberculosis, nor any disease which would render the vaccine unfit for common use, a fact, which of itself speaks volumes for the care taken in selecting the animal used.

THIS IS THE ONLY VACCINE WHICH, SINCE 1876, HAS ALWAYS STOOD THE SEVERE TEST REQUIRED BY THE HEALTH DEPARTMENT OF CHICAGO.

—PRICES.—

10 Large Ivory Points, Well Charged [Warranted by package for 10 days.]	$1.00
Selected points, each,	.25
Or, five for [Each point warranted separately for 14 days.]	1.00

Special and Liberal Rates Given to Agents, State and Charitable Institutions, State and Local Boards of Health, Wholesale and Retail Druggists.

Please mention THE TIMES AND REGISTER.]

The Times and Register.

Vol. XXII, No. 18. NEW YORK AND PHILADELPHIA, MAY 2, 1891. Whole No. 660.

Address.

VALEDICTORY ADDRESS TO THE GRADUATING CLASS OF THE MEDICO-CHIRURGICAL COLLEGE.

BY E. E. MONTGOMERY, M.D.

GENTLEMEN: Three years, with their changing seasons, have come and gone since first we looked into each other's faces, and entered upon the course which must be fraught with so much of weal or woe to you. Three years of continuous labor, of earnest toil, each day gladdened by tasks accomplished, life's problems solved, and new knowledge gained, until you stand to-day upon the verge of a new departure.

As I glance over your systematic curriculum, in which each year has its prescribed duties—laying a foundation, firm and secure, upon which the succeeding one is to be nicely placed—in which, in the laboratories, you have been permitted to separate organic substances into their elementary parts, to study the normal structures of the tissues of the organism, and witness the pathological changes resulting from the ravages of disease; to peer into the mysteries of nature, ascertain the causes of its disturbance, and consider the methods by which the progress of disease is arrested and its fatal stroke averted; and contrast it with my college course of seventeen years since, with its didactic lectures upon the fundamental branches, supplemented by occasional clinics, I am constrained to congratulate you upon your opportunities. During this period the methods of surgery have been revolutionized, and to-day we stand confronted by an era in medicine when the terrors of many hitherto unconquerable diseases threaten to be dispelled.

As newly-enlisted soldiers, unfurling your banners upon the world's broad field of battle, your hearts must warm when you consider the achievements of many who have preceded you, and have inscribed their names high upon the roll of honor. On this roll may be seen the names of Harvey, Hunter, Ambrose Pare, Jenner, Wells, Pasteur, Lister, Virchow, and Koch: each of these a hero in the strife, who has borne his banner farther and farther out, and immutably fixed it upon the ramparts of disease. As neophytes in the American Association, you should receive inspiration from a McDowell, a Pancoast, a Gross, a Sims, and a Flint: men whose achievements constrain us to repeat:

> "The heights by great men reached and kept
> Were not attained by sudden flight,
> But they, while their companions slept,
> Were toiling upward in the night."

The contemplation of the grand successes of these men but serves, I hope, to awaken in your hearts an ambition to imitate their noble example, and earn for yourselves places in the world's future history. Your presence upon this stage to-day, and the bestowal upon you of the degree by our esteemed president, is an evidence that you are ready to enter the portal of the time-honored profession of medicine. Of its members, Robert Louis Stevenson, himself an invalid, has kindly said: "There are men, and classes of men, that stand above the common herd, the soldier, the sailor, and the shepherd, not unfrequently; the artist rarely; rarelier the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marveled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practice an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and, what are more important, Herculean

cheerfulness and courage. So it is that he brings air and cheer into the sick room, and, often enough, though not so often as he wishes, brings healing."

What greater encomium could be wished? Having completed your college course, you are confronted with the anxious question, "What of the future?" What measure of success is to reward your labors during the remaining years of life.

Success, like the ancient trophy shield, will depend much upon the standpoint from which it is viewed. One will regard the attainment of honor and influence through the acquisition of great wealth as the acme of success. If there be such among you, let me assure you that you have mistaken your calling. Medicine is a jealous goddess; she bestows not her favors upon him whose affections are engrossed with the mere love of lucre. Another, from pure love of truth and science, is content to delve in the quarries, to bring forth treasures to enrich the fund for the benefit of mankind. For such there are still rich mines, the value of whose treasures has never been explored. That among these are the names of those whom the world loves to reverence is evident from the fame of Virchow, Pasteur, and Koch.

Another class endeavors to dip deeply into the treasure house of knowledge, and place in practical use, for the benefit of their fellow-men, the pearls of wisdom therein contained. Their lives are spent in self-sacrificing devotion to others, and much of their reward comes from the assurance of distress relieved and burdens lightened.

I feel assured that the majority of you whom I address to day will, from inclination, be found in the last class, and that we cannot do better than devote ourselves to the consideration of what we esteem as essential to the attainment of the highest success. As a foundation stone, upon which you should now fix your feet, we would place self-confidence, or faith in your ability to accomplish the purposes you undertake. What is more despicable than to see a man engage upon a vital work, lacking confidence in his ability to complete it? He is like the storm-tossed mariner, with compass lost, moving hither and thither at the mercy of the waves. He acts from no fixed motive; his diagnosis of disease is imperfect, without logical foundation, and subject to frequent change; his methods of treatment are uncertain, without reason, and consequently empirical. As a surgeon, he is hesitating, devoid of resource, and incapable of conducting other than the most simple operations to completion. "Confidence begets confidence;" the man who lacks it finds it difficult to inspire it in others.

It is said there can be no doctrine enunciated so extravagant that it will not attract believers, if it be presented with the energy and zeal born of faith.

We need but to glance over the financial world to observe how men will haste to place their money in impossible gold mines, improbable bonds and securities, and imaginary Edens, when presented and advocated by men who seem to believe in them.

Confidence is the guarantee you offer that you will accomplish your undertakings. To be accepted at its full value it must be associated with character. Character is the subject of growth and the result of continued accretion. It has been defined as the slow spreading influence of opinion, arising from the deportment of man in society. As such it registers every blemish as a stain which shall be discerned by those who watch your career. In erecting this structure, remember, that—

"In the elder days of art
The builders wrought with greatest care,
Each minute an unseen part,
For the gods see everywhere,"

and so build that your work may not only bear the scrutiny of men, but receive the commendation of Him who discerns the motives and underlying principles of our actions.

The ancient Egyptian well said that "Before virtue God has placed toil," and, "Life is no meal served up for our enjoyment by Providence, but a service upon which we must expend our best force."

"Let each one test his nature and endowments, and the better he will succeed in using them for the weal of the whole body—as a member of which he came into the world—the higher will rise his inward bliss, the more surely will he attain to serenity of soul, the fewer terrors will death offer to him. In the consciousness of having scattered seed for the future, like a faithful householder, on the evening of each day, he closes his eyes at the end of the hour allotted him on earth."

With character, then, your guarantee is accepted without further indorsement. It is true, the unscrupulous quack, by attractive advertisements, skilfully worded to awaken the fears of the timid and to excite the hopes of the despondent, may appear to ride upon the flood-tide of prosperity; while the honest, well-educated, and conscientious physician finds himself plodding along life's dusty highway, unsought and unattended. He is, however, with all his success, no more to be envied than is the railroad-wrecker, or the bank despoiler, with his questionably-acquired millions, by the upright man of business.

As a guide in the acquisition of character must be recognized knowledge. With a proper estimation of its value in your future life-work, your alma mater has demanded of you a preliminary education for entrance into her portals, a rigid examination at the close of each year, and a high standard for your exit from her walls.

As you stand here to-day, conscious of years of faithful toil, of time well employed, we would admonish you that you have but entered upon your education. Our work has been to open the doors to a vast treasure-house, teeming with the choicest accumulation of ages—to furnish you a catalogue by which its contents may be studied and acquired.

While your study, mainly, must necessarily be one-sided and in the direction of your chosen vocation, yet, as all knowledge is but the aggregation of individual experience, the more varied your acquisitions, the wider will be your circle of influence.

A prominent and learned statesman, when remonstrated with for employing an ignorant physician, said that he believed every man to have a knowledge of something, and, as his physician knew absolutely nothing of anything else, he had assumed that he must be learned in medicine.

Unfortunately, at this age of the world, when different surgical procedures are minutely described in the current popular literature, when the latest medical discoveries, in all their significance, are discussed from one side of the world to the other, you will be judged from an entirely different standard.

Books must not be your only teachers. Bacon has said; "Studies teach not their own use; but that is a wisdom without them and above them, won by observation." This is a teacher by no means to be slighted or underestimated.

As the persistent, educated lover of nature passes along the highways, he sees beauties that are ob-

scured to the traveler of different inclination. Cultivate careful habits of observation, and seek to analyze and utilize the data thus acquired.

The observant physician will often determine the character of an ailment before its possessor has been subjected to a single interrogation, but will utilize the subsequent investigation to demonstrate the truth or falsity of his conclusions. The mind of the busy physician becomes a vast gallery, hung with diagrams or charts, with some of which each new case is studied and compared until it is assigned to its proper classification.

The possession of the faculty of tact or discretion is to be appreciated in securing success. The honest physician neither solicits nor rejects confidential communications, and when received considers them inviolable. Unfortunately, your work will not be confined to the sick patient, but you must study as well to please the friends and relatives. To do this, the self-respecting physician does not play the part of a sycophant, but, with all gentlemanly courtesy and firmness, asserts his position as general in command. Unless his right to this prerogative is respected when required, it is better that he should withdraw from further responsibility. He who is weak enough to permit himself to be retained when his authority and directions are not respected, will find himself condemned for adverse results. Men respect the man who respects himself. As a matter of confidence, let me whisper to you that the highest mark of your worldly discretion will be in making the ladies your friends; with them captured, the men will follow.

Patience or perseverence is the ally that furnishes the key of success to those who have not been especially favored with the ability to acquire as rapidly as others. The greatest results are often accomplished by the steadfast exercise of ordinary qualities. The placing before one of a high aim, and never losing sight of it as he toils along, is the goal to success. Buffon has said of genius: "It is patience." The world's history furnishes innumerable examples of men who have been obliged to fight from beginning to end for recognition. Cook, the navigator, and Burns, the poet, were day laborers. Livingtone, the missionary, was a weaver. In our own country, we find Lincoln, Johnson, Grant, Garfield, and Cleveland, men from birth and early surroundings of no promise, attaining to the first position in the gift of their country through patient, persistent toil.

Scanning the ranks of the profession upon which you now enter, you will find the majority of those who have attained the highest success, the greatest renown, are men who have experienced the stimulus of necessity.

As Disraeli, by patient industry, from the laughing stock of the British Parliament, became its leader, so it behooves you to improve the leisure moments of your earlier years in practice, that when opportunity presents itself you are prepared to utilize it. Do not be disturbed that your office is not filled at once with patients; it is better for you that it should not be. You have much to do by way of preparation, in study. not only in books, but that highest study of mankind—man.

Probably one of God's greatest gifts to man is decision of character. While it is true that this may be unequally possessed by different men, every one has the germs of it, which are capable of cultivation. The surgeon or physician brought face to face with an emergency in which the life of an individual is at stake, requires coolness of manner and decision of character. You need but to have watched the deportment of men in the different clinics during your term of study to have been impressed with its importance. One surgeon will proceed to the simplest operation in such a way as to impress patient and friends with the fact that it presents the utmost gravity; another meets the most serious and unexpected complications with a coolness of deportment that robs every one of fear.

In our profession, above all others, an abiding, steadfast love of humanity is an essential to true success. We are our brother's keeper, for to us is intrusted that which he values above everything else—his life. The great draft upon our sympathies, the loss of rest, and offensive tasks, would become too irksome to be borne by the mere lover of gain. The reason of failure with many young physicians is the fear of doing something for nothing. The poor washer-woman, who can only reward your service with a "God bless you," may be the means of bringing to you a wealthy patient. The exercise of your regard for your fellow-creatures, in cheerfully caring for such, is casting bread upon the waters, which will return in future days.

It must be said to our credit that our associates are but seldom lacking; indeed, when we consider the years of arduous service in hospital and dispensary, cheerfully rendered; the sacrifice of time and money expended in building up such institutions; we may safely claim they have demonstrated that the medical profession stands second to no other in its love for humanity. Their love is shown by their works.

It is said, "The highest exercise of charity is charity toward the uncharitable." This it must be yours to practice. Sickness and suffering render the patient a supreme egotist. A similar condition is generated sympathetically in his family. Your best-directed efforts, attended by sacrifice of leisure, sleep, and nerve energy, will fail of appreciation when unrewarded by relief. Learn to be patient under misrepresentation and want of appreciation, for "Charity suffereth long and is kind." That man who has the ability to put himself aside and look upon men's actions, even toward himself, impersonally, exerts a power that in the end attracts the admiration of enemies as well as friends, for charity shall cover a multitude of sins.

As we separate to-day, you to enter upon your life-work, we to pursue the daily routine of busy lives, rest assured that our good wishes go with you. The reputation of every school is dependent upon the position secured and maintained by its alumni. Remember, then, that your success or failure affects not yourselves alone, and let the knowledge that your fellow alumni and your college rejoices in your every successful achievement be an incentive to new energy and increased zeal.

In conclusion, in the words of the apostle to the disciples, I would urge you in "Giving all diligence, add to your faith, virtue; and to virtue, knowledge; and to knowledge, temperance; and to temperance, patience; and to patience, godliness; and to godliness, brotherly kindness; and to brotherly kindness, charity; for if these things be in you and abound, they make you that you cannot be barren and unfruitful."

DR. JUMP reports in *The Pacific Medical Journal* four cases of trichinosis, of which one died. The patients were Italians. The attack was attributed to eating raw pork.

Original Article.

A REVIEW OF THE TREATMENT OF VARICOCELE.[1]

BY G. FRANK LYDSTON, M.D.,
CHICAGO, ILL.

RÉSUMÉ: In discussing the merits of the various operative procedures for varicocele, it is not necessary to take them up in detail. The *raison d'etre* of many of the specially devised (?) and named operations is apparent only to the operator. The indication in all operations is to limit or suppress the circulation in the plexus composing the varix. For our purpose the various methods may be devised into:

1. Acupressure.
2. Subcutaneous deligation.
3. Open deligation.
4. Deligation with resection of veins.
5. Deligation with resection of scrotum.
6. Resection of the scrotum.

1. The employment of acupressure at the present day is an evidence of a lack of faith in modern antisepsis, and, to my mind, is much like the Dutchman's method of cutting off his dog's tail—"an inch at a time, so that it wouldn't hurt him so much." Gradual obliteration of the veins by pressure—with or without ulceration—has all the dangers of immediate deligation, as far as sepsis and trauma are concerned; and, moreover, these dangers are continuously incurred from start to finish, whether the process requires a few days or several weeks. I include, under the term acupressure, all the methods involving gradual severing or obliteration of the veins. The dangers of acupressure are, in a measure, similar to those of subcutaneous deligation, shortly to be described.

2. Subcutaneous deligation is not an essentially dangerous operation in skillful hands. Unfortunately, however, the rank and file of operators are not as skilful as some of those who claim such extraordinary success with this method. Simple as the various methods of subcutaneous ligation may appear, serious accidents have occurred. The operation is done in the dark, so to speak, and more tissue is included than is essential to the cure of the varix. A certain amount of cellular tissue is certain to be included with the mass of veins, and the strangulation of this tissue is not conducive to safety. The veins also may not be completely strangulated. McKay relates a case in point: "In the early summer of 1888 I was called in by Dr. Habib Tubagy, of Beyrout, Syria, to operate on Mr. Nasif, an unmarried carpenter of that city. Two days previous to this he had been operated upon by Vidal's method, but as there was considerable swelling of the scrotum, and he was suffering much pain, he desired the radical operation by the open method. After thoroughly cleansing the parts an incision was made similar to, but somewhat shorter than, that in the former case. The wires were found enclosing the blood-vessels and much cellular tissue, and not tight enough to entirely arrest the flow of blood."[2] A portion of the scrotal tissue may be included in the loop of the ligature, unless great care be taken. The veins being squeezed up *en masse*, there is less security against secondary hemorrhage than when they are ligated separately. Scrotal hæmatocele, phlebitis, septic infection, thrombosis, and embolism are possibilities. Regarding the latter, however, it is my opinion that there is more danger of thrombosis and embolism in gradual occlusion of the veins than in their cleanly individual deligation. Subcutaneous deligation, while not so dangerous in this respect as acupressure and its *congeners*, is more so than a neat, open operation. Strict asepsis neutralizes all possible claims for the timid and hap-hazard deligation in the dark. Surgeons of some experience have included the vas deferens in the loop of ligature or wire with resultant atrophy of the testis. A case of this kind has occurred in Chicago. Atrophy of the testis, however, does not necessarily imply inclusion of the vas deferens, as ligation of the spermatic veins alone has produced it. I believe, though, that this danger of atrophy has been overrated. Severe varicocele is attended by atrophy of the testis, sometimes to a marked degree; as the varicocele subsides, this degenerate condition becomes apparent, and the superficial observer might conclude that atrophy had occurred as a result of the operation. Tetanus is one of the possible results of inclusion of the vas deferens.

Richet, in practising the method of *enroulement*, has observed that a vein with hardened and thickened walls is occasionally found in the midst of the mass composing the varicocele, which may be mistaken for the vas deferens. He relates a case in which both himself and Denonvilliers were in doubt in the performance of Vidal's operation. Richelot cites a similar case.[1]

Many surgeons believe that the chief danger of ligation subcutaneously is inclusion of the spermatic artery, which is deeply situated amid the mass of veins composing the varix. Ligation of this artery, it is claimed, leads to certain atrophy of the testis. This is the opinion of Gosselin, and, following him, Levis, Gouley, Jenks, Malgaigne, and Henry. Nicaise is also very chary of tying the artery. Malgaigne holds that it is impossible to avoid the artery, and that, therefore, subcutaneous deligation is equivalent to castration. Guyon and Richelot claim that the arteries of the vas deferens and cord proper are sufficient to preserve the nutrition of the testicle.

Sir James Paget reported a case of pyæmia following subcutaneous deligation. Curling spoke of several cases of *enroulement* practised by Roux, in which death resulted. Thievenow had a case of death from septicæmia. Howe reported a fatal case of peritonitis after ligature.

That severe pain, and even tetanus, should be liable to occur in subcutaneous deligation is not surprising, if we take into consideration the numerous and sensitive nerve filaments which supply the involved parts. The inclusion of these nervous structures in the ligature is, to a great extent, unavoidable. The danger is reduced to a minimum, however, by care in separating the structures of the varicocele, and including as little tissue as possible in the ligature.

Despite the foregoing criticisms, I do not condemn subcutaneous deligation *in toto*, and have myself performed it a number of times. In proper hands, and under some circumstances, it is well enough. I believe, nevertheless, that there are better and safer methods. There is no need of complicated needles and other devices in this operation. Juniperized silk

[1] Read before the Southern Surgical and Gynecological Association, and printed from advanced sheets of their Transactions.

[2] Thomas W. Kay: *Cleveland Medical Gazette*, December, 1889.

[1] Quoted by Wickham.

is probably the best substance for ligature. After proper antiseptic precautions the scrotum is gathered up in the hand and transfixed from before backward with a small tenotome; the knife is then withdrawn and the scrotum allowed to drop back in place. A fine stiff probe (eyed) threaded with juniperized silk is now passed through the punctures between the veins and the vas deferens, and passed back outside the veins still carrying the ligature, to emerge at the point of original entry in front. The probe is removed, and the ligature tied and dropped. The usual precaution of rest is now taken. Any of the various forms of needles may be used, if desired. The results of subcutaneous deligation when properly performed are certainly good, a large proportion of cures resulting. This in a measure compensates for the undesirable features of the method.

FIG. 1. FIG. 2. FIG. 3. FIG. 4.

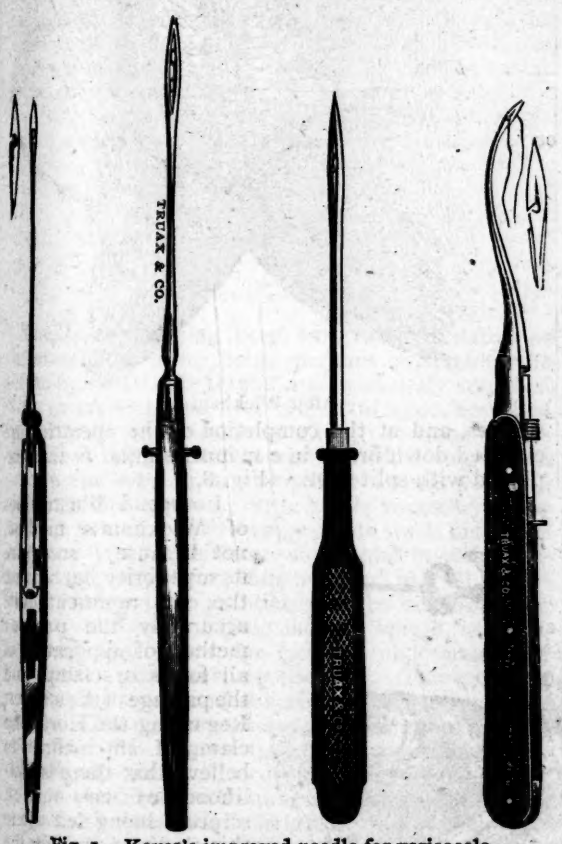


Fig. 1.—Keyes's improved needle for varicocele.
Fig. 2.—Keyes's varicocele needle, plain.
Fig. 3.—Whitehead's varicocele needle.
Fig. 4.—Reverdin's needle.

3 and 4. There is little choice between open deligation without disturbance of the veins and deligation with resection of the veins, excepting possibly (this being very remote) the additional danger of sepsis in the latter. Division of the veins with the cautery wire is as yet untried, but in spite of the favorable report of its originator, I believe it to be the most dangerous operation yet devised.[1] The dangers of the open method are in a less degree those of subcutaneous deligation, with the exception of that of inclusion of the vas deferens; this cannot occur. If the open method be selected, the point of election should be as high up as possible, and as small an incision made as is practicable to work through. The veins are thus ligated in their straight portion with very little mauling about of the cellular tissue. The higher up the deligation the less the danger of sepsis, cellulitis, and atrophy of the testis, the latter advantage being possibly due to the avoidance of trauma of the smaller veins upon which we must rely for return circulation after obliteration of the vessels composing the varix.

In a general way, it may be said that deligation at a single point in each vein is safer than at several points in the same vessel; it is also quite as effectual. The results of the open method performed in this manner are excellent, and the danger under antisepsis is very remote.

5. Deligation with resection of the scrotum I consider to be the ideal operation in by far the majority of cases demanding surgical interference. Much depends on the method of performance; the important details, as far as the danger to life is concerned, affecting chiefly the deligation. Under proper antiseptic precautions, I do not believe that the scrotal amputation complicates, or at least enhances the dangers of the operation. Deligation with resection is indicated where the varix is large, and the scrotum very lax and pendulous. The removal of the latter gives the best prophylaxis against recurrence of the varix. The results are likely to be better than those attained by any of the other methods.

6. Resection of the scrotum is the safest operation for varicocele, and, according to Henry,[1] is a radical cure in the true sense of the term. He reported fifty-nine operations some years ago, which, as far as he could learn, were radically successful. This same operator has since reported a number of cases at various times, for which he claims an equal degree of success. In my early experience with Henry's operation, I was inclined to accept the statements of the ardent advocate of the method without much question. A wider experience and observation has, however, convinced me that to omuch has been claimed for the operation. To be sure, as Henry *naïvely* says, it makes little difference if the operation is again necessary, after a lapse of years, as the method is perfectly safe, but this is begging the question in regard to an alleged "radical cure." In very large varicoceles the changes in the texture of the venous walls are such that pressure and support alone are insufficient to secure restoration of their natural consistency and calibre, even though the pressure be sufficiently firm and continuous. There is little

FIG. 5.

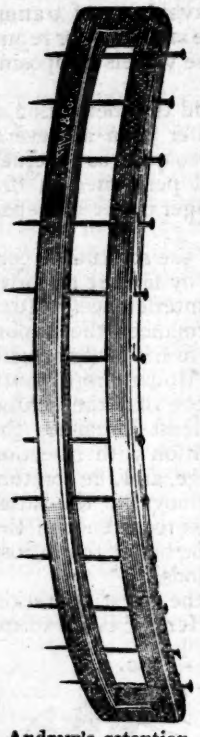
Henry's improved scrotal clamp.

[1] Pearce Gould: *Lancet*, 1880.

[1] M. K. Henry: Treatment of Varicocele. J. H. Vail & Co., 1871.

elasticity in the remaining portion of the scrotum, and the tone of the part is apt to remain as impaired as before the operation, the same constitutional conditions prevailing. It is my opinion that stretching and relaxation of the new "natural suspensory" or scrotum will occur in the majority of severe cases sooner or later. The varicocele may not be as severe as before the operation and the more urgent symptoms may be relieved, but there is nothing edifying in the spectacle of a good-sized varix a few years, or perhaps a few months, after a so-called radical cure. I desire to do the method full justice, however, and am free to say that the subjective symptoms do not always recur *pari passu* with a return of the varix; but I am discussing a "radical cure," and hair-splitting is unnecessary. The patient is apt to forget the original subjective symptoms, and gauge the value received by the ocular and objective evidence at his command. My complete monograph, when published, will contain illustrations showing the condition of several cases several years after the operation.

FIG. 6.

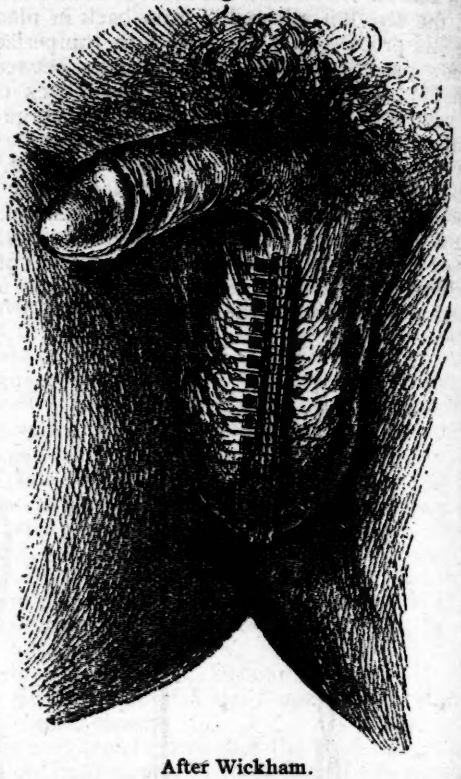


Andrew's retention clamp for varicocele.

In moderate varicoceles and in quite young subjects the scrotal tissues are apt to retain a certain degree of consistency and elasticity, and the veins have not usually entirely lost their normal tone. Under these circumstances scrotal resection is the ideal operation. It is far better, in my opinion, for a patient to submit to this operation than to be annoyed by suspensory bandages for the rest of his days. It is safe when properly performed, and gives an ideal result.

One of the most systematic operations for varicocele is that advocated by M. Edmond Wickham.[1] This surgeon uses the Horteloup clamp and performs the operation with the strictest antiseptic precautions. The novelty of this method consists in his mode of fastening the sutures. The sutures are passed a short distance apart and are double; at one extremity they are fastened to a thin strip of lead moulded to accurately fit the curve of the scrotum after its curtailment. The sutures are passed through between the blades of the clamp before its removal. Between each suture is passed a harelip-pin. Small sections of lead-tubing are passed over the ends of the double

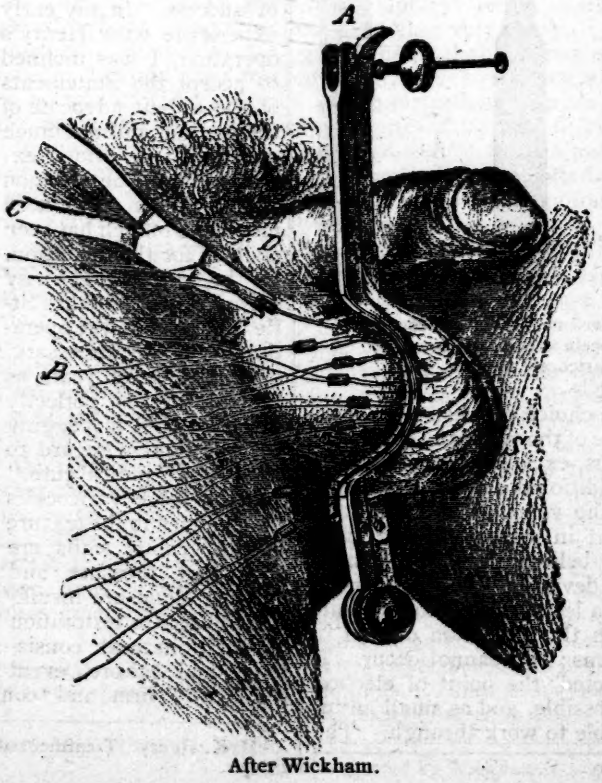
Fig. 8.



After Wickham.

sutures, and at the completion of the operation are clamped down firmly in a manner similar to that employed with split shot. (Fig. 8.)

Fig. 7.



After Wickham.

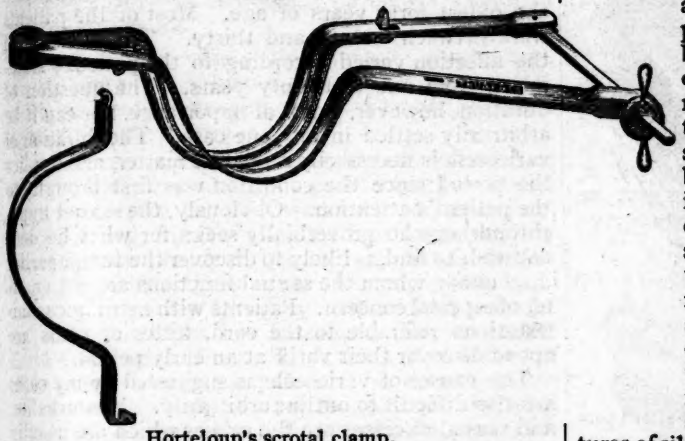
I append illustrations of Wickham's method, not because I recognize its superiority, but because the cuts represent quite accurately the proper method of application of all forms of clamps and the passage of the sutures. Regarding the Horteloup clamp, I am inclined to believe that there is likelihood of too much scrotum being left where this clamp is used for the purpose of outlining the proper amount of tissue for removal. (Fig. 9.)

In describing what I believe to be the ideal method for large varicoceles it is not my intention to advocate it as a routine practice. The surgeon must necessarily at all times use his best judgment and select the operation apparently best suited to the exigences of the case in hand. I will simply describe the method which I believe to be the safest and near-

[1] Thése de Paris, 1885.

est approach to a radical cure in the vast majority of cases of pronounced varicocele. I shall not follow the usual custom of claiming the method by virtue of some little modifications of technique. As I have already hinted, the *raison d' être* of so called special methods usually exists in the mind of the operator. I do not know whether this particular combination of the old and new is practised by others, nor do I consider it material to the subject in hand. If it is so practised the operator is privileged to label it to suit himself, providing he will permit me to use the label.

FIG. 9.



Horteloup's scrotal clamp.

The bowels having been emptied by a saline or castor oil, the latter being perhaps preferable, the scrotum, pubes and thighs are thoroughly scrubbed with green soap and bichloride 1 to 2,000, and then bathed with a bichloride solution, 1 to 1,000. This completed, the patient is anæsthetized, during which process the scrotum is wrapped in a towel wet with the bichloride solution. It is hardly necessary to say that the operator is now supposed to wash his hands and remove all superfluous subungual organic matter. Everything being thus prepared, and all instruments having been asepticized by boiling water, an incision, an inch or a little more in length, is made, beginning just below the external abdominal ring and parallel with the spermatic cord. This is carried down until the cord and its accompanying veins are exposed. The number of veins varies in my experience; they are here quite straight and when emptied of blood quite small. The cord and veins are hooked with an aneurism-needle out of the wound, which is meanwhile occasionally irrigated with bichloride solution; the veins are now separated, and several of the larger ones ligated with a single ligature of medium-sized juniperized silk; the ligatures are cut short, and the veins and cord dropped back in place. If there is any difficulty in reposition of the cord it is readily overcome by traction on the testicle. The wound is now irrigated and thoroughly dried, towels instead of sponges being used for this purpose. Sponges are far inferior to soft towels for checking oozing, which are for many reasons to be preferred. Several fine stitches of juniperized silk are now inserted, the wound closed and dusted with iodoform. During the remainder of the operation the wound should be compressed with antiseptic gauze by an attendant. The next step is the application of the clamp. I have used both Henry's and a modification of King's clamp,[1] but any other good clamp willl do. (Fig. 10.)

[1]King's clamp is lighter and less bunglesome than Henry's.

Care should be taken to divide each side of the scrotum equally, and to include sufficient tissue in the clamp. As already observed, it is well-nigh impossible to remove too much. I have operated in cases where I have removed the clamp after excision of the scrotum for the purpose of ligating a vessel, and have found so little tissue left that I had extreme difficulty in covering in the testes, yet the new scrotum has not only proved sufficient, but I have wondered whether it would not have been practicable to remove more tissue. The point of election having been determined upon, the redundant tissue is quickly cut away along the face of the clamp. Juniperized silk sutures and harelip-pins are to be used, and may be inserted either before or after the excision, but always before removing the clamp. There should be as little delay as possible, as the prolonged pressure of the clamp produce more or less bruising of the loose scrotal tissues, which is not conducive to prompt union. Three or four pins are usuallyenough; these should be inserted at divided intervals, and the silk sutures interposed in sufficient number to prevent gaping and maintain accurate apposition. Henry covers the heads of the pins with sealing wax, and embeds their points in small corks. A plan which is perhaps better, and one which I occasionally practise, is to pass reinforcing sutures of silver wire instead of the pins. A single strand of wire is used, and its ends knotted upon small rubber buttons or fixed in split shot. The tension is so extreme that something more than ordinary sutures is required. The secondary blade of the clamp having been removed, the sutures are lightly tied and the main clamp removed. If the sutures be permanently tied before removal of the clamp, the surgeon may have to reopen the wound to tie some spouting vessel. Vessels should be twisted where possible, or transversed by a suture. An assistant must now press back the testes, else they will pop out in a truly demoralizing fashion. I well remember my first experience in this respect. I wondered where on earth I was going to get skin enough to cover those obstreperous appendages.

FIG. 10.

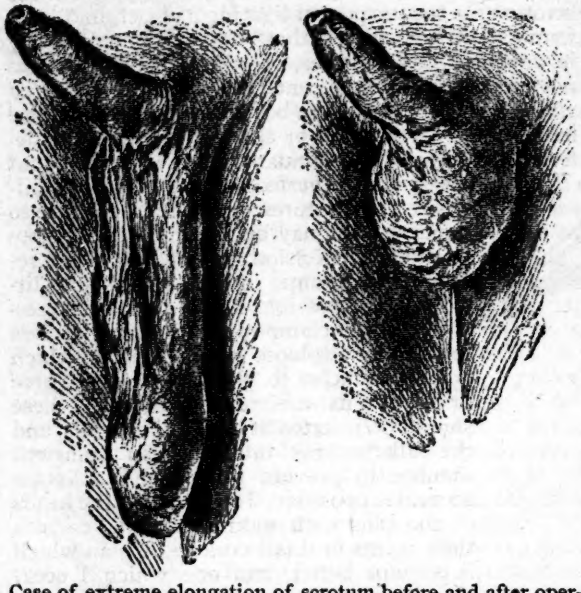
King's scrotal clamp.

All hemorrhage having been checked the wound is permanently closed. Too much care cannot be taken in checking hemorrhage, as there is an especial tendency to venous oozing; the formation of a clot beneath the wound will not only prove a source of septic danger, but will prevent speedy union. There is also the danger of serious hemorrhage of a passive character. To one unfamiliar with operations about these parts the tendency to prolonged oozing is peculiar. I have noted it for several days after a most careful operation for varicocele. The danger of hemorrhage is in a great measure dependent upon the constitutional condition of the patient, as shown in one of my cases.

The occurrence of concealed hemorrhage and formation of clots can be readily avoided by the insertion of a small drainage tube along the line of suture at the lower angle of the wound. I prefer for this

purpose decalcified bone, but rubber will, of course, answer the purpose. Henry uses adhesive plaster as an additional support to the wound, but I have found graduated compresses to be all that is required.

FIG. 11. FIG. 12.



Case of extreme elongation of scrotum before and after operation. (After HORTELOUP.)

Having closed the wound and made provision for drainage the parts are irrigated with the bichloride solution, dried, the edges sprinkled with iodoform and a piece of oiled silk or protective laid along the edges to prevent adhesion of the subsequent dressings. A quantity of borated cotton and antiseptic gauze, in which a hole has been cut for the penis, is now applied, and the whole secured by a three tailed bandage, secured at the waist. A light diet should be advised and no attempt made to move the bowels for four or five days. When a movement does occur the parts should be carefully supported and a bed-pan used. The sutures should not be removed for six or seven days or gaping will quite likely occur. So extreme is the tension when the operation is properly performed, that gaping is quite frequent. The drainage-tube should be removed in three or four days. The silver pins or wire sutures, as the case may be, can be allowed to remain for several days longer, if necessary. An excellent plan where gaping occurs is the application of stout mole-skin plaster on either side of the wound; through the edges of the plaster holes are punched and the two strips laced together with a stout silk or hempen thread, shoe-string fashion. The strips of plaster should extend well out to the thighs. Although a speedy union is desirable as lessening the liability to inflammatory complications and enabling the patient to get about soon, gaping of the wound has some compensatory advantages. The cases which heal by granulation yield a firmer support to the varix from cicatricial contraction and inflammatory thickening. This was well illustrated by one of my cases in which erysipelas occurred.

The patient may be allowed to get up in two weeks if no complications arise.

My operations for varicocele now comprise forty cases of all methods, ten of which have been subcutaneous deligation of the veins, sixteen of simple resection of the scrotum, four of resection of the scrotum with ligation of the veins at several points, one of open deligation with resection of the veins, one of open deligation without resection of the veins, and eight of ligation of the veins high up with resection of the scrotum. A recital of these cases in detail would be monotonous as well as wasteful of valuable space; hence I will give only the points of interest developed by their study. I have had no deaths and but few cases in which there was serious reason for alarm. In some few instances, however, there were certain features which caused me considerable uneasiness for a time.

The youngest patient operated on was eighteen and the oldest forty years of age. Most of the patients were between twenty and thirty. The duration of the affection varied according to the patient's statements from one to twenty years. The question of duration, however, is not of importance, nor can it be arbitrarily settled in any one case. The duration of varicocele is necessarily a relative matter, and implies the period since the condition was first brought to the patient's attention. Obviously, the sexual hypochrondriac who proverbially seeks for what he does not wish to find, is likely to discover the tumor earlier than one in whom the sexual functions are not a matter of especial concern. Patients with neuralgic manifestations referable to the cord, testes or penis are apt to discover their varix at an early period.

The causes of varicocele as suggested by my cases are also difficult to outline arbitrarily. Masturbation and sexual excesses are the causes which are usually assigned for varicocele. Often, however, sexual excesses do not appear to be sufficient *per se* to account for varicocele, but no other cause is discoverable. It is certain that only a small percentage of masturbaters have varicocele. As, however, all boys masturbate, it is safe to say that about all subjects of varicocele have done so, hence the *post hoc ergo propter hoc* argument is quite natural. I believe that I am safe in saying that sexual abuse alone never causes varicocele, and that it is an effective cause in direct proportion to its association with some constitutional fault involving vasomotor perturbation and laxity of tissues, with especial reference to the venous walls.

As illustrative of the important relation of general vascular atonicity to varicocele, one of my cases is certainly striking. This case was under the charge of Dr. S. V. Clevenger, one of our leading neurologists, who was treating him for epilepsy. The doctor observed scrotal hæmidrosis and referred the patient to me as a curiosity. On examination I found a large varicocele which the patient claimed was causing him great annoyance by its weight, and the consequent backache, dragging upon the cord. On inquiry I elicited the fact that he was exceedingly hypochondriacal. A peculiar feature of the case was the fact that the seminal emissions, like the sudariparous secretion of the scrotum, were heavily tinged with blood. Urethrametry revealed several strictures in the penile urethra. As the epileptic attacks were infrequent and had developed since the acquirement of the strictures—and the patient claimed, since the development of the varicocele—it was thought advisable to operate. As I considered the hemorrhagic secretions to be a fair warning of the danger of hemorrhage, I ligated the varix subcutaneously, and at the same time performed a dilating urethrotomy. As I anticipated, a terrific hemorrhage from the urethra resulted. The bleeding continued for three days, and necessitated the constant presence of an attendant who applied pressure by means of an ice-bag. There was considerable induration of the veins and a sharp

orchitis following the ligature. The result, however, has been excellent so far. The epileptic attack which was expected at the time of the operation has been postponed for nearly four months. I do not say that this fact is proof of the casual relation of the stricture and the varicocele to the epilepsy. Time may show this, however. Like many operations upon the skull for epilepsy, the result in this case may be due to a temporary revulsive effect upon the nervous mechanism which has merely postponed the usual explosion. I will state, however, that the patient's general health is much better, and that he has markedly increased in weight; he claims a gain of twenty-five pounds.

A recent letter from this patient, nearly nine months since the operation, states that his improvement has been permanent, but that he had one very light attack of epilepsy.

Several of my cases have apparently followed an epididymitis or traumatism. In how far those causes were responsible for the varix in these cases I am unable to say. In the case of a fireman, among my patients, I am confident that an injury caused a very large varicocele. Very often the only relation between epididymitis or injury and varicocele is the fact that the latter has been first discovered after these accidents. Personally, I think that either of these causes may be operative. I have had one case of varicocele undoubtedly due to athletic strain. All authors, I believe, admit the possibility of a kick producing varicocele. In several instances I have had patients with small varicoceles who happened to be under observation, whose varices increased after an attack of epididymitis. Anything which will impair the tone of the involved part, or induce circulatory obstruction, should be operative in producing or at least aggravating varicocele.

I have operated on two jockeys, each of whom attributed his varicocele to excessive horse-back riding; in one case the patient recalled an injury in springing into the saddle. There is no question in my mind as to the casual influence of excessive horse-back riding in producing varicocele. All old cavalrymen will support this opinion. The records of the pension office afford abundant proof. Dr. James A. Lydston, who has been connected with the pension bureau for some years, informs me that varicocele is one of the most frequent disabilities presented to the attention of the department, and that it is especially prevalent among those who served in the cavalry. How important the appearance of two jockeys for treatment is in this connection I cannot say; it may have been a coincidence, and I am unable to state that the prevalence of varicocele among jockeys is a matter of comment. Other things being equal, they would be less likely than other riders to injure themselves, as they ride on plain saddles, and they cannot, therefore, experience the disagreeable effects of a blow with a pommel. Jockeys, as a class, are young, healthy, light-weight subjects, who are well kept and not subject to vascular debility.

The symptoms for which the patients upon whom I have operated have sought relief have varied. In several instances the principal annoyance complained of was the deformity. One of my patients, for example, was annoyed by the frequent comments which were made upon his appearance, his varicocele being so bulky as to be quite prominent even when his trousers were amply large. There was no other symptom in his case which was of any particular moment. The case was much more remarkable as regards volume than that of Horteloup, which I have presented.

In several other cases there was noticeable deformity, but associated with it were sexual hypochondriasis and various reflex disturbances. In some instances mechanical discomfort has been chiefly complained of. In several cases intertrigo, and in one instance severe chronic eczema constituted the chief source of annoyance. Pain in the back, shooting pains along the cord and penis, and neuralgia of the testes have been frequent. In some cases irritability of the bladder has been complained of. In nearly all instances sexual hypochondriasis, with or without spermatorrhœa, has been pronounced. I do not wish to be understood as asserting that all of the symptoms for which the patients sought relief were necessarily dependent upon the varicocele. The nocturnal pollutions, spermatorrhœa and prostatorrhœa might have been due in many of my cases not to the varix *per se*, but to the same underlying cause as the varix. In several instances the principal symptoms were not removed by the operation.

FIG 13.

Lewis' scrotal clamp.

In but one case have I had sufficient hemorrhage to give rise to any particular annoyance. In this case there was a tendency to hemophilia. This, with my failure to use a drainage-tube, resulted in a concealed hemorrhage, the formation of a clot, and after removal of the latter, free passive oozing for some days. In this case there was the most extensive ecchymosis that I have ever seen, the tissues from the umbilicus down to the middle of the thighs being as black as extravasated blood could make them. The result, although alarming in appearance, was not a matter of concern, but the patient became very much frightened at what was apparently, as he expressed it, a "general mortification." A tendency to ecchymosis exists in all cases of operation for varicocele, and this should be remembered, else both surgeon and patient are apt to be demoralized by the consequent appearance of the parts. In several other instances there has been a tendency to oozing for some days, thus precluding the possibility of primary union.

The use of the drainage-tube is, in my estimation, one of the most valuable points in all operations involving resection of the scrotum. Concealed hemorrhage, tension, and sepsis are not liable to occur when the tube is used; there is unquestionably danger of these accidents without it. As long as marked oozing persists the tube should be allowed to remain. Should severe hemorrhage occur after the operation has been completed, the tube facilitates hot water irrigation or the application of styptics, the former being the best hæmostatic.

The healing of the wound in a fair proportion of my cases of resection of the scrotum has been by first intention; but I have found that there is in many cases a tendency to gaping, even though the sutures be allowed to remain for a week or more. Indeed, I am inclined to believe that when there is no tendency

to gaping, hardly enough scrotum has been removed. The gaping is always due to the extreme tension upon the parts incident to a thorough operation. It may be prevented in many cases by allowing the sutures to remain in for some little time. If juniperized silk and silver wire be used, as I have suggested, the stitches can be allowed to remain in from five to eight days with impunity.

In several instances I have had slight sloughing of the scrotum, evidently from extreme tension. In these cases, however, the result has been even better than those in which primary union occurred. No matter how much tissue may slough, the parts become covered in by an excellent scrotum with almost marvelous rapidity. Although the fit is decidedly snug at first, the testes soon accommodate themselves to their new investment. I have never seen a more delighted patient than one of mine, in whom cellulitis occurred as a consequence of infection after operation.

I recall a case of cellulitis of the scrotum—hot, however, following operation—that occurred some years ago in the New York Charity Hospital, in which the testes were bared completely, yet by judicious strapping and occasional stimulation of the granulations a good scrotum was finally secured. I saw several other cases of scrotal cellulitis in the New York State Emigration Hospital during my term of service in that institution. Contrary to the rule in such cases, none of these died. In all there was extensive sloughing of the scrotum, but repair when once begun was very rapid. Such cases teach us that in resection of the scrotum there should be little fear of excising too much tissue. The more excised the better the result; and while it is always desirable to obtain primary union where possible, I feel justified in saying that the more gaping the better the result. Cellulitis, *i. e.*, erysipelas, is not a source of danger in resection of the scrotum unless direct infection occurs. This was the explanation in one of my hospital cases already mentioned. The failure of the wound to unite promptly is, undoubtedly, in some cases of scrotal resection, due in a measure to the prolonged pressure of the clamp. Sloughing may be partially explained in this manner. As I have already remarked, my faith in resection of the scrotum as a radical cure for varicocele has been somewhat shaken by several of my cases. In one instance I have had an opportunity to watch the gentleman for nine years since the operation, and although I removed all the tissue necessary to an ideal operation in this case, the varix, which was a very large one, has recurred, and is now nearly as large as ever. The symptoms, however, for which he sought relief have not returned. In two other cases there has been a moderate recurrence. The objection may be urged that I have not taken off enough scrotum. My conscience is clear upon this point, however, as I have invariably taken off all I could in reason and still retain a scant covering for the testes. I have also at present under my care a gentleman, who was reported by a well-known Western surgeon as a radical cure of variocele by resection some years ago, in whom the recurrence is pronounced. A photograph of this case will be published with my complete paper.

My operations of subcutaneous deligation have been successful, but on the average have given me more uneasiness and trouble than those in which I performed the open operation. Induration, pain, and orchitis are some of the disagreeable features which I have experienced from this method of operation. I have found that the operation of tying the veins low down is much more objectionable from this standpoint than that involving ligation higher up, as in the combined operation which I have recommended. It is obviously safer to ligate the veins at their comparatively straight portion, where the changes in the vascular walls are at a minimum, and there is the least necessity for mauling about the investments of the testes and tearing up the planes of areolar tissue. I have already given my reasons for advocating the combined operation. In one of my cases of combined operation I ligated the vessels at several points rather low down. This patient did fairly for two weeks, when he arose against orders, or rather, over-exerted himself when allowed to sit up. As a result, phlebitis, cellulitis, and consequent slight suppuration developed. During convalescence this patient developed severe *la grippe* with marked pulmonary symptoms, hæmoptysis being profuse, giving me great apprehension of pyæmia with embolic pneumonia, etc. Although never very strong-lunged, this patient perfectly recovered.

In four or five cases stricture existed, and urethrotomy was performed simultaneously with the operation for varix. I can see no objection to this procedure, and I have had but one case in which the operation upon the urethra afforded any complication. This instance, already alluded to, was one in which severe urethral hemorrhage resulted.

Two cases have come under my observation which suggested the possible development of hydrocele as a result of operation for varicocele. In one of these cases, operated on by me several years ago by subcutaneous deligation, I again operated on a short time since for an encysted hydrocele upon the same side. In another instance, I operated for hydrocele in a case in which subcutaneous deligation had been previously performed for varicocele of the same side by another practitioner. The patient was complaining of the same symptoms, according to his statement, that had characterized the original varicocele. My operation for hydrocele, although perfectly successful *per se*, has not relieved the symptoms from which he was suffering. He is now giving me a great deal of annoyance by his complaints of severe neuralgia of the testicle. The irritation of sunken sutures, which had accidently traversed the tunica vaginalis, or obstructed venous circulation *plus* irritation, might account for these cases. In ligating low down the tunica vaginalis is apt to be quite roughly handled, if not actually traversed by the ligature. Acute hydrocele is a very frequent element in the swelling resulting from ligature of the varix. As already remarked, the testis itself may be involved. Injury of the fascial envelopments of the cord high up is not important, and is a necessary factor in the operation which I have suggested.

I have never performed an operation for double varicocele, involving double deligation. Indeed, I have met with no case which to my mind required such operation. Even though a case of double varicocele should apparently require a double operation, I should hesitate to incur the risk of atrophy of both testes. In ordinary single operations the risk of atrophy is doubtless overrated. This is probably due to (1) the relative appearance of shrinkage incidental to the subtraction of the swelling of the varix *per se*. (2) Continuation of atrophy, which was steadily progressing prior to operation. (3) Atrophy due to embolism, syphilis, epididymitis, etc. Theoretical considerations, however, do not always mollify the patient where atrophy of the testes occurs. It will be remembered that Delpech was assassinated by a man

upon whom he had performed a double deligation for varicocele some years before. On autopsy the murderer's testes were found to be soft and shrunken, presumably from the operation.

I have had no case in which atrophy of the testes has followed an operation, and have had several of scrotal resection, in which the testes became firmer and larger after the operation. Among my cases was one of scrotal hæmatocele, resulting from the injury of large varicocele. In this case suppuration occurred, and I was obliged to lay the part open, and as soon as it was healthily granulating I removed the pendulous scrotum with an excellent result. While I have not been able to follow all my cases for a great length of time, the immediate results have been eminently satisfactory, and in those cases which I have been able to follow for a period of several years, I have had no occasion to regret the operation. In the majority of instances the relief obtained has been so marked that the patients were greatly delighted. That this was always a physical result of the operation I do not claim, nor do I think, under the circumstances, that it is a question of great importance.

In general I have found that the combined operation of high ligation of the veins with resection has been much better from the standpoint of economy of time than the subcutaneous or ordinary open operations of ligation. Painful induration and swelling of the testes, with consequent disability and impeded locomotion, are very frequent in my experience when these operations of deligation have been performed.

In nearly all of my cases there has been a marked improvement in the patient's mental condition. Hypochondriasis has been relieved and sexual vigor improved or restored. Pain has been relieved in most instances. A notable exception is the case already mentioned in which hydrocele followed an operation for varicocele and severe pain persisted after cure of the hydrocele.

DISCUSSION.

Dr. Willis F. Westmoreland, of Atlanta, Ga.: I was very much pleased with Dr. Lydston's paper. He brought out some interesting points. I have had but very little experience with varicocele. The few cases I have had were operated on after the plan of the essayist. Unfortunately, most of the varicose veins were in the lower portion of the scrotum, and, instead of ligating above by a simple operation, I enclosed them in the clamp and cut them off. The first case I had I opened the scrotum and, as I thought, ligated all vessels simply by laying segments of the scrotum back, above and below; but I found out I did not, and that night I was called about two o'clock to see the patient. He was having a profuse hemorrhage. I took out all the stitches and ligated the two vessels I found bleeding. Even with that unfavorable result I have tried it on two other cases.

I agree with the doctor fully that in many cases, if you simply ligate without curtailing the scrotum, you are apt to have a return of the varicocele; in addition to that, the nervous symptoms, especially with reference to the sexual organs—impotence and other varieties of nervous troubles. I curtail the scrotum in every case now of varicocele. I cut off every bit of it I can with safety of bringing the edges together afterward. I always leave just enough tissue to be brought together. I operated on a case in this way, and the patient got well in about a week. He took the dressing off on the seventh or eighth day.

Dr. W. O. Roberts, of Louisville, Ky.: My experience in the treatment of varicocele has been confined to three cases. In the severe cases I always practice the open method, make a long incision, and remove the veins. I use the subcutaneous ligature, and in doing this I use a large needle with small thread passed, as in olden times, through a button, except that I do not use a button. I have had no experience in excision of the scrotum; in fact, I cannot say that I have seen any cases where I thought I would be justified in removing the scrotum. In the majority of cases of varicocele I do not think any operative interference is necessary; and when an operation is done, in a large proportion of cases we have a recurrence.

Dr. Henry F. Campbell, of Augusta, Ga.: I have been consulted on many occasions with reference to the subject of varicocele, and I have formed the opinion that in many cases, especially in young subjects, the operation should be delayed until full maturity of the sexual organs has been attained. I recall a striking instance: A distinguished and highly intelligent gentleman of this State brought his oldest son to me for examination, and he said, "Doctor, I think my boy has a hernia." On examination I found that it was varicocele. The boy was only fourteen years of age. His organs were in the height of their development, and I told the father that no operation was required; that he should wear a suspensory bandage, and the spine should be rubbed with a cold sponge night and morning, and the parts bathed with cold water. He followed my advice. I had formed no particular theory on the subject, except that I never forgot the neurodynamic influence of the spinal cord in all vascular processes, whether they be nutritive or trophic, congestive or inflammatory, no less than in its ordinary control of sensation and motion. Shortly afterward he brought in his second son and said: "I am troubled in my family a good deal. Is not this a case of hernia?" Not long after a third son was brought to me. The boys were between thirteen and twenty years of age, and I came to the conclusion that the veins of the part had become congested and turgid from temporary over-nutrition consequent upon development of the sexual organs. I have seen many of these cases occurring in adolescents who came to me with regard to curing them. At a particular time of male adolescence the genital organs begin to develop rapidly; there is increased nutrition of the parts, and the veins become engorged or enlarged, the scrotum relaxes, and the patients feel as if they had something unusual there, and instead of calling it varicocele, they hit upon hernia almost invariably as the most familiar and dreaded thing.

While on this subject of turgescence in development, I may say that we have to recognize, in the boy as well as in the girl, the period of puberty as characterized by what may be called *a new and sudden endowment of blood*. This is more particularly in the organs to be developed, but also in the general system, for the entire body changes and grows too. This local and general trophic plethora is not always so manifest in the boy—he has only to develop his sexual organs that they may become competent to procreate—while the girl's turgescene has to be more elaborate; she has not only to develop the organs, but ever after that time of maturity she must be made competent to supply, for several days in each month, from three to six ounces of blood, which, in case of conception, is to be appropriated to the gravid enlargement of the uterus and to the growth of a fœtus during nine months, and afterward, probably, to lactation, during nine or ten months longer; but

even the boy must have a large amount of blood to develop his testicles, and it is this turgescence which constitutes the kind of varicocele he is affected with at this time. But there is not the least doubt that many of these developmental enlargements of the veins become and remain permanent morbid conditions, embarrassing the nutrition, and secretion, and growth of the testicle in the matured life of the man, finally involving and then destroying the structure of the organs, giving rise to impotency, melancholia, and a long train of evils which imperatively demand operative measures for their prevention or relief.

I have been greatly interested by the description of these more recent methods as given in Dr. Lydston's paper just read, and my remarks have referred only to the class of cases which I have mentioned—the recollection of some of my experience. In regard to these cases I will say that I have never operated on any young subject for the radical cure of varicocele. After awhile the organs begin to assume their natural condition, and we hear no more about varicocele. These patients get married and live to have a good many children, some of them, and we hear no further complaint of their testicles.

Dr. George A. Baxter, of Chattanooga, Tenn.: I did not intend to speak on this subject, but the remarks of Dr. Campbell prompt me to report a case in this connection:

A prominent man brought his son to me for an examination for varicocele and prospects for going to school. He had intended to send him to a military institute. He asked me whether an operation could be done so that the boy could go immediately to his studies. I advised him to let his son go, and that during the next vacation I would operation upon him. He went, and he was subjected to severe drill during his period there. When vacation came there was an unusual growth and vigor of body and a subsidence in part of the varicocele. I told his father that a continuation of the same treatment of delay was justifiable in his case. To day he complains nothing of it, and I believe if there can be a spontaneous cure of the affection, this is one.

Dr. F. W. McRae, of Atlanta, Ga.: I agree almost *in toto* with Dr. Lydston's excellent paper. There are undoubtedly a number of patients who will not submit to the ideal operation, and they demand of us the simplest operation that offers hope of relief from this condition. I have seen several cases where I would have curtailed the scrotum and ligated the veins had they been willing to have it done. I have in several cases resorted to subcutaneous deligation without a single bad result, so far as I know, except in one instance, which I will mention. I do not think there is any good reason why we should have pyæmia as a result of the operation where thorough antisepsis is practised. A gentleman upon whom I operated, I met yesterday morning, when he handed me this discolored bandage which you see. It has been two years since I operated upon him. This is a new suspensory bandage, and he has only worn it three days. In the summer-time it is much worse. I follow the method as recommended by Keyes, and have not seen atrophy of the testicle. I do not see why we should have atrophy if the operation is done with sufficient care, where the vas deferens is not included in the ligature. The blood-supply of the testicle is such that we are not apt to cut off nutrition to such an extent as to cause atrophy.

Dr. Lydston: I will endeavor to consider *seriatum* the points brought out in the discussion. Those made by Dr. Campbell have been touched upon in the portion of my paper which was not read on account of lack of time.

In Dr. Westmoreland's case, in which he included the veins of the varix in the clamp and cut the whole mass off at once, though he did not kill the patient, it was nevertheless, in my opinion, a dangerous thing to do. I do not believe that the doctor himself would take such chances again. Probably the patient would not care to undergo another operation of the kind.

As far as catgut sutures are concerned, I formerly used them, particularly the chromic gut as prepared by MacEwan, but I have stopped using it since I have had some bad results. I found that catgut was not reliable; I could not get good knots, and I believe that has been the experience of most surgeons. I am now using juniperized silk, which I prefer to anything I have ever used. I never have any bad results from irritation produced by the sutures. In my experience the knots become encysted or disappear. These sutures and ligatures are especially reliable in operation for varicocele.

Dr Roberts took the position that the majority of cases will be better off if let alone; that they do not require operation. I touched upon this point in my paper. There are certain cases of marked varicocele that require operation. Such cases as were referred to by Dr. Campbell I described in my paper as cases of spermatic congestion, dignified by the term varicocele. Very frequently in these cases there are certain general and special symptoms incidental to masturbation, with which symptoms varicocele has nothing whatever to do. All such symptoms disappear when the patient is married. One of the early writers upon varicocele, Landouzy, of France, described these cases. Sometimes sexual intercourse, instead of relieving the varicocele, aggravates the symptoms, and there is an increase in the size of the varix.

Now, as to the indications for operation. There are some individuals who object to going about with a varix dangling about their legs. I think we all know of cases of this kind. Hardly a week passes that I do not see men sitting with their legs apart in a street car and exposing a large varix bulging through their pantaloons. I have operated on patients who had very large varicoceles who complained only of the deformity. I believe that when a varicocele is large it should be operated on; but we should not urge patients to submit to an operation. There are certain cases, as I have stated, that require operation from the fact that the individual desires to go into military service, the varicocele being an obstacle to admission. There are many cases of pseudo-impotence which, while they may not be entirely dependent upon the varicocele, but upon the same causes as the varicocele, are relieved by operation. There are cases where the rubbing and profuse perspiration incidental to the relaxed state of the parts produce intertrigo and violent eczema. I have operated on such cases. In every case in which varicocele is probably the cause of sexual hypochondriasis an operation should be made. I care not whether the benefit derived therefrom be physical or moral, the patient asks for relief and it should be given him.

Dr. McRae said that these patients require the simplest method which offers the prospect of cure. They require something else. They require the safest method. There is no question in the minds of those who have studied this subject and have had large experience, but that curtailment of the scrotum is the ideal operation from the standpoint of safety. If the patient is made to understand that the operation is attended with less danger and that the result is better

in moderate varicoceles, he is apt to select that operation. If the varicocele is large, or if there be profound reflex disturbance of a mental character, or if, as is frequently the case, the patient has a severe backache, lumbar neuralgia, or vesical irritation, the case demands curtailment of the scrotum and ligation of the veins. I have seen some severe cases of this kind. I believe that cases of hæmidrosis of the scrotum are rare, but that when we have such cases they are dependent upon vasomotor changes, and that the particular cause is the same as that at the bottom of the varix, *i. e.*, some condition involving lack of vascular tone. The epileptic patient mentioned in my paper is an illustration of the fact that lack of nervous tone and consequent vasomotor disturbances are often the ultimate cause at the bottom of the varicocele. This man had epilepsy, probably not from syphilis, and was treated for a long time with mercury, potash, etc. He developed varicocele after the epilepsy. He also had stricture. One of his complaints was scrotal hæmidrosis, and within a very few hours after a suspensory bandage was applied it was absolutely saturated with the hemorrhagic oozing. I ligated the veins, cut the stricture at the same time, and, as an illustration of the vasomotor element in this case, I have never had such free hemorrhage in cutting the stricture in the penile portion of the urethra. I repeat the case at this point because of the interesting fact that I have recently had a letter from the patient, being a later report than that embraced in the body of my paper, in which he informs me that he has not had a fit for nearly five months and is getting fat. Possibly the result may be only temporary, but the case is exceptional, and I present it for what it may be worth.

The Polyclinic.

PHILADELPHIA HOSPITAL.

Dr. Deaver presented a case of traumatic aneurism of the femoral artery, in which the thigh measured thirty-four inches in circumference. Owing to the absence of pulsation and of decided bruit, the diagnosis had been difficult, in making of which the exploring needle had been the most important agent.

The appearance of the limb suggested osteo-sarcoma, from which the aneurism was differentiated by the following: It had not peculiar spindle shape of osteo-sarcoma; was movable, and disconnected from the femur; did not give the so-called egg-shell crackling found in osteo-sarcoma of large size, caused by the rubbing of thinned lamina of bone one against the other; absence of bruit (sound as of wind blowing through leaves) heard in osteo-sarcomas that are advanced and undergoing degeneration. Diagnosis from fatty tumor by inability to make it assume a saddle-shape upon grasping the skin and making it tense.

Relative to the exploring needle, Dr. Deaver said, it is not always safe to use it even in the extremities, and that it is not advisable to puncture in cases of osteo-sarcomas until ready to operate, as it hastens their growth.

The operation was ligation of the femoral at the proximal side of its rupture. Dr. Deaver said he would prefer to open the sack, turn out the blood clot, and tie the artery at both ends, but the necessarily fatal loss of blood contra-indicated this operation.

There are certain forms of retrodisplacement and prolapse of the uterus in old unmarried women. The reason for these is a loss of tissue consequent upon senile changes. The walls of the vagina lose their support and allow prolapse without any pathological change except attenuation.—*Dr. Ashton.*

In all displacements when the uterus is bound down, no efforts should be made to break up adhesions, except by abdominal section.

—*Dr. Ashton.*

Dr. Marshall reported a case in which the tubercles of Montgomery, surrounding the nipples, developed into supernumerary nipples, eight on one side and six on the other.

Symptoms which are referred to a displacement of the uterus are sometimes really due to the weight of flabby abdominal walls. This condition sometimes also causes dyspepsia, by allowing distension of the intestines, thereby promoting decomposition of their contents and formation of gases.—*Dr. Marshall.*

The nipples should be frequently and carefully washed before confinement, as crusts form upon them which are removable only by careful and persistent washings. If not removed, and the surfaces bathed with some substance which will harden the skin, such as alcohol, when the child takes the breast they come off, and leave a raw surface, which becomes sore, cracked, and fissured, and presents a favorable ground for the development of germs and subsequent mammary abscesses.

When the nipples are depressed below, or do not project beyond the surface of the breasts, they should be manipulated until they attain their normal relative position; or they may be worked into their proper shape by suction through an ordinary clay pipe, placing the bowl over the nipple. Care must be exercised in these operations, however, as the sympathy between the breasts and pelvic organs may set up uterine contractions.—*Dr. Marshall.*

Dr. Vansant presented a case of a male adult, about to be discharged, who had been thought to have tuberculosis of the lungs, presenting, in addition to a family history of consumption, the following symptoms: A rapid, progressive emaciation, cough, excessive expectoration, night sweats, continuous high temperature. He also gave history of syphilitic infection, and had running from the ear and sore upon the nose. Blowing breathing and continued excessive expectoration pointed to syphilis of bronchi, and on antisyphilitic treatment all the symptoms rapidly abated, fever sank to normal and the patient gained eighteen pounds in a few weeks. While tuberculosis and syphilis may exist together, the marked improvement under treatment points to the conclusion that the trouble was all syphilitic.

Dr. Vansant also presented, for post-mortem examination, a patient who had died of gout of the kidney. Patient had history of many acute and subacute attacks, and had chalky formations in the ears. Fatal attack had been in progress three or four days, when gout disappeared from toe, and immediately symptoms of internal gout appeared. During attack, which began March 26 and terminated April 10, there were the local symptoms, temperature 100⅘, respiration 24, pulse 90, albumen in large quantities in urine, of which only 12 ounces were passed daily for several days. After a week eye-lids became œdematous, there was headache, nausea and vomiting, and local symptoms in the foot diminished. Urgent treatment for uræmia was instituted, and the urine, which had

been 8 ounces daily, was increased to 12 ounces, but vomiting continued and nothing could be retained on the stomach. There was some pain in abdomen, and patient died rather unexpectedly. The uræmia had been caused by gouty condition of the kidney.

On examination, kidneys were found to be small, granular, cortical substance, narrow; grating sound and rough feel on cutting, as of gouty deposits. On the surface of spleen were white spots, rough to the touch, and in the substance of the organ were found white, rounded hard bodies, probably gouty deposits. Mucous membrane of stomach was reddened, œdematous and congested, showed no ulceration, no roughness, no chalky deposits. In the serous coat of stomach there was no change. The congested condition of the stomach was probably due to vomiting caused by the uræmia. The lungs were small in size, and in their apices were rather hard nodules, which were thought tuberculous, especially as breaking down tissue was found about them. This may occur, however, about chalky formations. Serous coat of lung was unaffected. The heart was found enlarged, enlargement principally in left ventricle, valves normal, endocardium unaffected. Liver showed slight excess of connective tissue. No deposits were found on the external surface of the brain, although they are often found in its membranes. Its substance was to be kept for minute examination.

The diagnosis of gouty kidney was mainly based on the albuminous urine containing granular and hyaline casts, in connection with history of gout and increased size of the heart.

Redness of a structure should never puzzle any one. It is always due to a dilatation of the capillaries caused by their irritation.—*Laplace.*

Prof. Laplace, after removing a tuberculous gland, injects into the wound a 10 per cent. solution of iodoform in ether. The ether penetrates every part of the wound, and, evaporating quickly, deposits in every nook and cranny a minute quantity of iodoform, which is almost a specific against tuberculous growths.

The mucous membrane about the rectum is naturally loose. When there are piles, when there is a fistula, when there is any condition which requires surgical procedure, as a result there will be stretching of that loose mucous membrane on cicatricial contraction. In other words, here I find the membrane loose and a pile hanging down. I have performed two minor operations (for fistulæ), and as a result I know there will be a stretching of the mucous membrane, which will be a spontaneous cure of this hemorrhoid; therefore, never remove every pile in a case of hemorrhoids, but leave at least a small one, in order to allow for the stretching, otherwise there is likely to be traumatic stricture of the rectum.

—*Laplace.*

Baby's dress "should be comprehensive, inclusive, and unobtrusive," and of the utmost simplicity. The dress should be warm, soft and elastic, and allowing freedom of movement. If it can be afforded, Jaeger's flannels are of the best. Simplicity and comfort are the great desiderata; all lace and embroidery should be omitted, and everything should be of the finest, though plainest, material. As few pins as possible should be employed, using buttons and tapes instead. In dressing, the child should be jostled as little as possible. The garments should be made so as to slip one inside of the other, the waist having several rows of buttons to accommodate several skirts. The abdominal binder should be knit, the shirt of thin woolen and with long sleeves. The next garment should be of flannel, with an outside slip of muslin, these being put together and put on all at once. The diaper should be soft and large enough to protect, and must be changed often. Socks should be knit and long. When the child is older the skirts may be shorter and should have support from the shoulders.—*E. P. Davis.*

THE MODERN TREATMENT OF SYPHILIS.—As regards the treatment of syphilis, mercury was now almost universally recognized as the best remedy for it, except in Scotland. As regards the latter, Mr. Hutchinson remarked that he thought some of his worst cases came from that country. The methods of using mercury were the internal and external. Inunction and fumigation were the most efficient measures of application for cases in which the other methods are not suitable, but for all ordinary cases the administration by the mouth is the most convenient. The grey powder is the best form to prescribe, it may be given in one-grain doses, with one grain of Dover's powder, three times a day. The frequency of the dose should be increased, not the dose itself, when further effect was desired. Simplicity in prescribing is everything to those busily engaged in practice. The mercury should be given before the appearance of the secondary symptoms, and it usually prevented the onset of the latter. Is mercury a specific for syphilis? Mr. Hutchinson considered that it certainly was, and that it killed the particulate virus upon which syphilis depends. In nine cases out of ten this treatment was probably successful in preventing secondary manifestations. Idiosyncrasy as to mercury, showed itself in two ways, those in whom it acted as a poison, and those in which it failed to act. Those who are very susceptible can usually be suited by reducing the dose sufficiently.

Iodide of potassium is of very little use in the secondary stage of syphilis. The iodides of mercury are much less satisfactory than the grey powder (hyd. c. cret.). When sores are present in the tonsils, mercury may irritate; in these cases the latter drug should be reduced, and iodide of potassium given in mixture separately. As regards phagedæna, the main point was to treat it efficiently locally, giving possibly opium internally. Iodoform is the best local measure, and since the introduction of this drug far less severe results of phagedæna had been witnessed. Cauterization with the acid nitrate of mercury may also be employed. Some of the worst forms of phagedæna occur during a second attack of syphilis.

A course of mercury should last over a long period; six months to a year. The long course usually does the patient's general health good. A minority are made irritable and susceptible to colds. Such benefit is sometimes derived from the drug, that one patient had exclaimed to Mr. Hutchinson, "before I had syphilis my life was a burden to me." It is a valuable remedy also for dysmenorrhœa, and many forms of chronic inflammation.

Does the apparent cure of syphilis by mercury place the patient in a better position as regards the tertiary manifestations? Mr. Hutchinson stated that it was extremely difficult to decide definitely on this point by any statistics, pointing, however, strongly to the conclusion that it did so, was the fact that the severe forms of syphilis were becoming less frequent year by year. The bad cases of bone disease, periostitis, etc., were much less often seen now.

—*Med. Press and Circ.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.
A. E. ROUSSEL, M.D., French Exchanges.
W. F. HUTCHINSON, M.D., Italian and Spanish Exchanges.
C. D. SPIVAK, M.D., Russian and German Exchanges.
GEO. WHARTON McMULLIN, Manager Advertising Department.

THE TIMES AND REGISTER,
FORMED BY UNITING THE
PHILADELPHIA MEDICAL TIMES,
THE MEDICAL REGISTER,
THE POLYCLINIC,
THE AMERICAN MEDICAL DIGEST,
PUBLISHED UNDER THE AUSPICES OF THE
AMERICAN MEDICAL PRESS ASSOCIATION.

Published by the MEDICAL PRESS Co., Limited.

Address all communications in regard to Editorial and Subscription Business, to 1725 Arch Street, Philadelphia.

Address all communications in regard to Advertising, to 218 E. 34th Street, New York.

New York and Philadelphia, May 2, 1891.

UNREFRESHING SLEEP.

SLEEP is not always "nature's sweet restorer;" but sometimes the sleeper awakes with a sensation of fatigue or of unpleasantness, that is quite the reverse of the renewal of life. The reasons for this are many; sometimes the beginnings of disease; the presence of noxæ imbibed during the night, etc., etc. Broken rest is an early symptom of incipient typhoid. Frightful dreams precede the outbreak of this and other septic fevers, and with these we have also soreness of the softer tissues, and a condition of semi-conscious sleep, resembling the coma-vigil that comes later.

Unrefreshing sleep may also occur from too much food, too little food, or food of improper quality. Late and heavy suppers, and the consequent nightmare, need more than a reference here. Plethora sometimes produces wakefulness in itself, or through the distressing attacks of pruritus it occasions. On the other hand, thin-blooded persons often sleep badly because they take an early supper, and their brains are too anemic for sound slumber. A happy man may require depressants and abstinence in one case, and something to fill the veins and increase the pressure in the cerebral vessels on the other. A glass of beer at bedtime gives so much relief here that this has become a very popular remedy. Much better is a cup of hot milk, beef-tea, or clam juice, as being more nutritious and less objectionable in every way. The habit of drink is often set up because the physician is not wise enough to recognize this pathological condition, and recommend a palatable and harmless substitute for the "night-cap."

Many cases of unrefreshing sleep are due to the absorption of noxious matter into the body during the night. This may be due to insufficient ventilation of the bedroom; to the escape of sewer gas into it; or to the auto-intoxication from absorption into the blood of substances contained in the intestinal canal. An enema at bedtime will then remove the cause of unrestful sleep. This is one of the cases in which flushing of the colon gives a temporary sense of well-being; though there are grave objections against the use of this procedure except occasionally.

Bodily or mental fatigue, generally the latter, often cause inability to soundly sleep. Perhaps this is the most serious form of the malady, as in it there is the greatest temptation to abuse the hypnotics. And yet of all this is the most simple and easy to treat; as a hot bath is a certain remedy. Many an opium habituè has become such for want of a bath-tub and a few gallons of hot water; but with the perversity of mankind they turn from a trifling expense to a drug that brings certain ruin with it.

Macfarlane has recently called attention in *The Lancet* to a more serious form of this malady. The patient's sleep is unusually sound. He wakes early, in distress, covered with cold sweat, and tortured with presages of disaster. Some confusion or aberration of the intellectual powers may be manifested on awaking. Sometimes these attacks are periodical; at others they follow some special freak or exposure. The patients are invariably neurotic and neurasthenic. All exhibit a lessening of mental force, with despondency and self-questioning. Those with whom excesses have preceded this state are apt to be depressed on going to bed; while if spanæmia be the underlying cause there may be a feeling of exaltation. In such cases the nervous system should be carefully scrutinized, and the possibility of nocturnal epilepsy should be borne in mind. Asthma, pregnancy, and the menopause have been noted in such circumstances.

The presence in the blood of bile, urea, uric acid, alcohol, etc., may give rise to morbid sleep. Consumptives usually feel weakest on awaking; even when there have not been night sweats. Nocturnal insanity has been described.

Macfarlane makes the following suggestions as to treatment:

> It is beyond the scope of this brief note to consider the treatment of such cases at length, entailing, as that would do, the hygiene and therapeutics of many diverse conditions. It will suffice to indicate that it must be of a twofold description. First, that directed to the condition of the patient; and, secondly, that adapted to alleviate the morning misery. The former, which is the essential element, involves the consideration of measures calculated to accomplish restoration of nervous energy, and the excretion of waste products, in which diet and regimen exceed medication in value. The latter, being palliative, is of secondary importance. The indication is to flush the brain with blood as speedily and thoroughly as possible. This can be done by two methods: by way of the nervous and of the vascular systems. Mosso demonstrated that a ray of light falling upon the eyelid of a sleeping man caused an increased blood-supply to the brain, by stimulating activity in the nervous centers. This accords with the physiological law which decrees that the blood-supply of an organ is in ratio to its activity, and it explains to a certain extent the invigorating effects of sunshine. A bright light shortens and decreases the acuteness of the attack. Equally warm and stimulating drinks, by increasing the frequency and force of the heart's action, afford much relief. The addition of a grain or two of caffein, and, in certain carefully selected cases, of a spoonful of brandy, is helpful. In some, full doses of valerian, ammonia, and chloric ether act quickly and well. In all urgent cases, in which the recurrences are frequent and severe, I advise a light to be kept burning all night and an attendant to sleep in the same room.

Annotations.

THE COLLEGES.

THE commencement of Jefferson Medical College was held April 15, when one hundred and eighty-eight graduates received their diplomas.

On April 16, the Medico-Chirurgical College graduated a class of thirty-five, the largest as yet in her history. The Alumni oration was delivered by Dr. Frank Woodbury, at the college, on April 14. After the meeting closed the Alumni met at the Colonnade Hotel for the annual banquet. Eight-five guests sat down to the feast, which was prolonged by the speech-making to 2 A. M. At that hour the meeting adjourned, and it may illustrate the high grade of the Medico-Chirurgical men that there was not one present who was not on his feet, quiet and reverent, while the benediction was being pronounced. That among so many men, most of them young, celebrating the close of their college career and entrance into the active life of the world, there should not be one unduly hilarious individual is worth noting.

The University of Pennsylvania will hold its commencement next month. The graduates number one hundred and thirty-three, and there were twenty who failed to pass the examinations.

ANTIPYRINE IN EPILEPSY.

IN the *American Journal of the Medical Sciences*, McCall Anderson reports a case of epilepsy of two and one-half years' duration, cured by antipyrine. The patient was nine years old. The first fit followed an injury to the head. Antipyrine was given in doses of 5 grains thrice daily, 1 grain being added to each dose each day, until the daily dose reach 75 grains. In fifteen days the fits had ceased, but the doses of antipyrine were not lowered to 1 dram daily until twelve days later. Twelve days after this one slight fit occurred, and the full dose given above was then resumed and continued. Six weeks later the fits had not recurred.

This history renders it probable that antipyrine has some power of controlling epilepsy, though it has failed signally in extended trials. But to claim a cure of an epilepsy of two and one-half years' standing simply because the convulsions have not appeared for six weeks is somewhat hasty. Longer intervals than this sometimes occur without the exhibition of any drugs.

THE *Lehigh Valley Medical Magazine* states that last fall there were reported 490 cases of typhoid fever in and near Bethlehem, with 32 deaths—a rate of 6.53 per cent. The sewage is deposited in pits in the limestone on which the town stands, and the water supply comes from a spring at the foot of the hill. Then, when people get typhoid fever and die, the proper caper is to bow before the mysterious dispensation of Providence, and continue to use the polluted water.

IT appears that the education supplied by Scotch and Irish medical schools is so thorough that the English hospitals are compelled to declare the graduates of these schools ineligible, that the English candidates may obtain the appointments. The same cowardly policy is shown by some of our city hospitals, whose managers, being devoted to the interests of one medical school, dare not open the appointments to a competition their friends are unable to sustain.

Letters to the Editor.

MALARIAL HEMATURIA.

IN your issue of the 11th inst. you allude to two articles on "Malarial Hematuria" in the April number *Atlanta Med. and Surg. Journal*, and in your criticism of Dr. Howel's article you ask the following:

1. Does hemoglobinuria ever occur in malarial cases, where no quinine, arsenic or calomel has been given?

2. What is the course of the disease if uninfluenced by treatment?

3. On what proportion of cases do the symptoms become graver after the administration of these or other drugs, given singly?

As I was the author of one of the articles that appeared in the *Atlanta Medical and Surgical Journal* of April, I thought I would answer the three questions, as I have seen the disease.

1. Hemoglobinuria does occur where no medicine has been given.

2. The course of the disease uninfluenced by treatment is an increase in the gravity of all the symptoms to a fatal termination.

As to the third question it is a difficult matter to make a satisfactory answer, as the serious nature of the disease and its rapid fatal termination, forbid the physician, who has a remedy that he can successfully rely upon, making any experiments. I abandoned quinine in the treatment of this disease, because after I had relieved patients of all the symptoms of the disease, I have brought on the hemorrhage by the administration of quinine, given for the purpose of preventing a recurrence of the chill. Upon one occasion I brought on hemorrhage the second time by the administration of quinine. I never gave calomel in large doses, or as a purgative, but as a capillary stimulant in one-half to one-grain doses repeated at intervals from one to two hours, and never give over three grains; this I give whether the bowels are acting or are constipated. While I never have treated a case of malarial hematuria with large doses of quinine alone, I do not believe a case of quinine hemaglobinuria could be produced where there was no malarial hemaglobinuria; it has, in my opinion, caused a recurrence of the malarial hemaglobinuria. What success I have had in the treatment of this disease has been without quinine, but in no case have I given large doses of calomel.

B. W. MASON.

SHERIDAN, ARK.

The Medical Digest.

PEROXIDE OF HYDROGEN is the best of all cleansers where there is pus, and in necrosis, pus is always present. Before the application of antiseptics, in order that the medicaments may be certainly brought in direct contract with the diseased tissue, peroxide should be employed to remove the pus, blood or dead tissue which might otherwise intervene.

—Gilmer, *Dental Review*.

IT is in neuralgic affections, and particularly in facial neuralgia, tic douloureux, and inferior dental neuralgia, that gelsemium has manifested the most signal therapeutic efficacy. We might, had we room, cite a long list of clinical authorities, in this country and abroad, who have found gelsemium a most efficient, if not always safe, antineuralgic. The dose is

from 2 to 20 drops of a saturated tincture, or of the fluid extract, repeated every two or three hours, till the pain is controlled.—*Therap. Gazette.*

When the physician is in a position to exert influence in such a matter, the following general rules should be borne in mind:

1. No marriage should occur between persons having the same hereditary tendency to disease; and this is especially important in marriages between relatives.

2. A girl should not marry under the age of twenty.

3. A person afflicted with hereditary or well-marked tubercular taint, or with constitutional syphilis, or insanity, should not marry at all.

—Birchard, *Lancet-Clinic.*

The following formula, apparently the invention of a country practitioner and much used by him in his skin cases, was found to be extremely useful in routine practice, wherever sedation with mild stimulation was indicated—or, in other words, it was a most excellent first prescription for nearly any skin disease having an inflammatory element.

℞.—Terebinth. canadensis	ʒss–ʒj.
Acidi tannici	ʒss.
Glyceriti acidi tannici	ʒjss.
Zinci oxidi	ʒj.
Adipis	ʒj.

M.—Ft. ungt.

This formula bears internal evidence of having been evolved and perfected from the exigencies of a country practice. It certainly was never borrowed from the writings of our great specialists, yet the writer knows of no one formula of greater range of applicability. We may note besides, that it is better to apply it by smearing it directly on the affected skin, for very many other salves produce their good effects only when applied like a poultice, by spreading them thickly on lint.

—Preble, *Columbus Med. Jour.*

Dysmenorrhœa.—The materia medica furnishes remedies only for the neuralgic and the congestive forms of dysmenorrhœa, the membranous not being amenable to treatment. In the neuralgic form much benefit may be derived from the exhibition of drachm doses of fluid extract of viburnum prunifolium three times a day for a week before the molimen. Apiol is also valuable in such cases, being less valuable in the congestive variety. It should be given in the same manner in from 3- to 5-drop capsules.

In the congestive form I think I have been able to furnish considerable relief by the employment of large doses of bromide of potassium in connection with the black haw.

The cases which tax the practitioner's tact are those occurring in young girls, to whom even the suggestion of a physical examination is repulsive. In such cases the only feasible plan is to subject the patient to the treatment for the neuralgic and the congestive varieties. Should this prove futile, it is fair to assume the existence of the obstructive form, in which case operative interference of the nature above suggested can alone furnish any hope of relief.

—Mulheron, *Jour. of Gynec.*

Pyoktanin in Cancer.—In considering my experience with pyoktanin as well as ethyl pyoktanin in my private patients, I should like to state the following facts in regard to the treatment of inoperable malignant growths with these aniline dyes, as far as they have been exhibited up to date (April 8):

The aniline dyes, applied on the surface of exulcerated growths in ointment or powder (about 1 to 200), or in substance, have a strong analgesic effect.

Parenchymatous injections of pyoktanin solution, 1 to 300, repeated every second day till fifth day, the dose not exceeding 1½ drachms, have in my cases proved to be innocuous to the general system.

The symptoms following the injections are either general or local.

The general symptoms, which can also follow the internal use of methyl blue, are nausea or vomiting, weak and slow pulse, headaches, general malaise. These symptoms may come on the same day or the day following the injection; as a rule, they do not come at all; now and then there is a slight rise of temperature, usually subsiding within twenty-four to forty-eight hours.

The local symptoms are:

1. Pain following the injection. It may be of long or short duration, slight or severe. It is more severe where the cancerous infiltration affected by the injection is dense (epithelioma of face, disseminated cancer of breast, etc.). It seems that local anæsthesia may follow the injection.

2. Œdema, coming on either acutely, and then accompanied with slight redness (non-inflammatory) and pain on pressure, or rather in a subacute form. This serous transudation of the growth may be the first step to reabsorption. The slight fever, observed in a number of patients, soon following the injection, had then to be looked at as being an aseptic one, possibly due to this reabsorption.

3. Breaking down of the injected tissue, with perforation of the skin or scar, which latter is the result of the operation (aseptic necrosis). By using a stronger solution, 1 to 200, the necrobiosis seems to be more rapid in smaller nodules. How far the surrounding infiltrated shell, which is left behind, is apt to spread farther, can only be determined by continuous observation. It may be advisable to use a weaker solution, 1 to 500, instead of 1 to 300, as we can thus dye a larger portion of the growth in one sitting, without increasing the dose of pyoktanin. We then inject a larger quantity of solution and still need not apprehend general symptoms. Perhaps the weaker solution will not destroy the tissue so rapidly and thus rather induce reabsorption than necrosis. The sinus or sinuses established by the breaking down of the tissues give exit to a thick, dark-blue fluid, which, by microscopical examination, proves to be not colored pus, but débris of the injected neoplasm. It is generally intermingled with shreds of necrosed tissue. In splitting these tissues one may find necrosed, deeply dyed, ramified tissue, surrounded by normal undyed fat and muscles, which is easily shelled out. Whether it will be necessary and possible to remove the necrosed tissue by operation, or whether this tissue will be extruded by means of a slow disintegration and longer secretion, cannot yet be determined. We also have to prove yet, whether operative interference in this stage will really benefit our patients. Perhaps nature gets slowly rid of the necrosed tissue without help. As it seems, the carcinoma tends more to necrobiosis and perforation during this treatment than the sarcoma. I personally could so far only subject cancer cases to the color cure. (V. Mosetig had his most striking results in patients suffering from sarcoma [see above]. He maintains that the injections, made under antiseptic precautions into neoplasms, which are still covered

by healthy skin, produce necrobiosis and fatty degeneration, which is not followed by perforation, but by reabsorption. Billroth, on the other hand, saw rapid softening and perforation in two out of three patients who suffered from sarcoma and were treated with the injections.)

4. Breaking down of the injected tissue (necrobiosis) with subsequent reabsorption (Cf. 3). This will probably be oftener seen, if we stop the injections for some time as soon as spots in the growth have softened, and only start them again after these spots have shrunk (provided, of course, that they did not perforate). Small, hard nodules in the skin, as seen especially in the disseminated cancer (recurring cancer of the breast), can entirely disappear in a very few days, even if the pyoktanin solution was injected into their base. Perhaps the rapid disappearance is not reabsorption, but only an illusion, which is caused by the œdema of the immediate surrounding tissue. A number of the nodules reappear after a few weeks, sometimes rather multiplied. The attempt at dyeing these small nodules directly, by pushing the needle right into them, is frequently unsuccessful, even in regard to the microscopical appearance, and causes severe pain.

An infiltration of hitherto healthy tissue with the neoplasm, in consequence of this treatment, has not been observed in a single case.

In no case did the growth spread during the treatment.

Applications of pyoktanin in substance on exulcerated tumors slowly removes the diseased tissue in the shape of dry gangrene. There is no suppuration under the eschar, on account of the strong antiseptic qualities of the dye, and consequently no cachexia. Pyoktanin is, however, no deodorizer. It also is no stypticum.

It may be advisable to combine the parenchymatous injections and local application of pyoktanin with giving aniline dyes internally. Pyoktanin is, in my cases at least, not borne by the stomach. Methyl-blue seems at present to be the most preferable.

If it could be proved by further observations that continued injections determine the necrobiosis of "all" the diseased tissue, the use of the aniline dyes, especially pyoktanin, in its different ways of application, and methyl-blue, will have a permanent place in operative surgery, no matter how much time the cure demands, no matter whether it is accompanied by pain, inconvenience and dangers to the patient.

—Willy Meyer, *Med. Record.*

Antisepsis in Typhoid Fever.—As the administration of quinine forms an important part in the method of treating cases of typhoid fever that I have long adopted, I will now describe that method. I have found, as Murchison had done many years ago, that of all antiseptic remedies free chlorine is the most useful. "I have repeatedly found it," says Murchison, "to have a beneficial influence upon the abdominal symptoms," and he describes how a solution of the gas may be readily obtained. I follow his plan, but I prefer rather different proportions. Into a twelve-ounce bottle put thirty grains of powdered potassic chlorate, and pour on it forty minims of strong hydrochloric acid. Chlorine gas is at once rapidly liberated. Fit a cork into the mouth of the bottle, and keep it closed until it has become filled with the greenish-yellow gas. Then pour water into the bottle, little by little, closing the bottle, and well shaking at each addition until the bottle is filled. You will then have a solution of free chlorine, together with some undecomposed chlorate of potash and hydrochloric acid, and probably one or two bye products. I greatly prefer this preparation of chlorine to the liquor chlori of the British Pharmacopœia; it is much pleasanter to take, and I have had much better results with it. To twelve ounces of this solution for an adult I add twenty-four or thirty-six grains of quinine, and an ounce of syrup of orange peel, and I give an ounce every two, three, or four hours, according to the severity of the case—that will be from twelve to thirty-six grains of quinine in the twenty-four hours, according to the case. I have for some years past treated all my typhoid fever cases, except the very mild ones, which have not appeared to me to require any active medical treatment on this system. They have not been very numerous, but they have been *consecutive* cases, and they have all done well.

In giving this mixture to a typhoid fever patient one of the first results you will notice is a remarkable cleaning of the tongue. You will scarcely ever find a dry, dirty, thickly coated tongue in a patient who has been early put on this mixture. Another most important change has been noticed again and again, and reported to me by the nursing sisters in our hospital; it is that the fetor of the evacuations, which have often been very offensive, will usually disappear within twenty-four to forty eight hours of the commencement of this treatment. Now this appears to me to be a very interesting and important point. We should expect that this mixture would be wholly absorbed in the stomach, and that it would not reach the lower part of the small intestine directly. Yet it certainly exerts an antiseptic action on the intestinal contents. May it not be that it exerts its antiseptic influence in the blood, and there encounters and neutralizes some septic substances generated by the typhoid bacillus, so that the excretions into the intestine are modified, and so an antiseptic effect on the intestinal contents is produced? In this way we not only obtain *intestinal* but also a *general* antisepsis. The illustrative cases I am about to submit to you have enabled us to observe the following effects as resulting from this treatment:

1. A modification and sustained depression of the febrile temperature.
2. An abbreviation of the average course of the fever.
3. A remarkable maintenance of the physical strength and intellectual clearness of the patient, so that there has been far less need of stimulants.
4. A greater power of assimilating food.
5. A remarkable cleaning of the tongue.
6. A deodorization of the evacuations.
7. A more rapid and complete convalescence.

Burney Yeo, *The Lancet.*

Early Diagnosis of Tuberculosis.—Dr. Mirinescu, in the *Revue Mensuelle des Maladies de l'Enfance* (March), points out that the existence of enlarged lymphatic glands in various regions of the body (axilla, groins, etc.)—"peripheral polyadenitis"—may afford considerable assistance in doubtful cases in making the diagnosis of tuberculosis in children. If the child is in an emaciated debiliated condition, and if there are no superficial lesions to account for the glandular enlargements, he considers the evidence in favor of tuberculosis very strong. In fifteen out of the sixteen cases of this nature examined, the glands were proved by experimental inoculations to be tuberculous. This peripheral polyadenitis may be observed in children as young as fourteen or fifteen months.

—*Brit. Med. Jour.*

INTESTINAL OBSTRUCTION:	TREATMENT.
A. ACUTE OBSTRUCTIONS.	
1. Malformations:	
Persistent ano-rectal septum.	Division of septum.
Absence of portion of tube.	Ano-enterorrhaphy, if practicable.
2. Hernia.	1. Taxis. 2. Herniotomy.
3. Internal strangulation.	Abdominal section and division of "ring" or adhesion.
4. Volvulus.	1. Position and taxis. 2. Abdominal section.
5. Intussusception.	1. Early diagnosis: opium, etc., with abdominal section. 2. Late diagnosis: absolute quiet and opium.
6. Enteroliths and foreign bodies.	1. Olive oil in large doses by mouth (3 ounces every half hour) and anus (1 to 3 pints) by rectal tube. 2. Abdominal section and enterotomy; or colotomy.
B. CHRONIC OBSTRUCTIONS.	
7. Fecal impaction.	Olive oil, large doses (as above), by mouth and anus. Soap suds and oil by proper rectal tube (see figure and description of tube).
8. Paralytic conditions.	Olive oil as laxative; strychnine and other tonics. General hygiene and attention to cause.
9. Cicatricial stricture.	1. Olive oil as a palliative. Sulphur or pulv. glycyrrhizæ co. ditto. 2. Rectal stricture: dilatation or posterior division. 3. Supra-rectal, colotomy; or laparotomy, with colectomy.
10. New growths, intramural.	Same as last, except dilatation.
11. New growths, extramural.	Abdominal section and removal.
12. Pressure from viscera.	Treat cause—trusses, supports, etc. Possibly laparotomy and suture.

POISONING BY ROBURITE.—I was urgently called to T. G., aged sixteen, at 9 A. M. The mother stated that she had been recommended to sprinkle roburite upon the floor of her son's bedroom, to clear out the cock-roaches. In this room slept a male friend (for the one night). I found the patient cyanosed, blue-black in hue to his very nails; tongue, lips, and mouth nearly black; body and face livid. The temperature was subnormal. He was shaky and cold. There was dyspnœa, respiration being hurried and labored. Pulse 135; very weak; great depression. The treatment employed was removal from the room, stimulants of all kinds, medicinally and otherwise, hot milk, and beef-tea. Hot water bottles to all parts of body, enveloping in hot blankets. The other lad was not so much affected, although slightly cyanosed. Evidently the inhalation of the fumes of the roburite caused the mischief. Gradually T. G. improved, but at 5 P.M. there was a relapse. On the third day the temperature was normal, after which recovery was rapid.

With regard to the action of this poison, we are taught that the fumes of roburite, when inhaled into the system, are exceedingly deadly, even in the smallest quantities; that when these fumes are inhaled in a coal mine, they carry with them two poisonous gases—nitric oxide and carbonic oxide; that incomplete combustion of roburite allows the deadly elements of the components nitro-benzine to escape and freely mix with the air, where it can be inhaled or absorbed by contact with the skin. Of course in this case there was no probability of combustion.

—Spurgin, *Brit. Med. Jour.*

Medical News and Miscellany.

DR. L. H. ADLER, Jr., has removed to 1610 Arch street, Philadelphia.

HOT CLARET is said to be a good gargle for sore throats. It is most valuable as a preventive.

DR. H. A. STARKEY, of Hegewisch, Ill., met with a painful injury recently, while stepping into his carriage.

DR. FRANK J. WEED, Dean of Medical Department Wooster University, Cleveland, died last week of pneumonia.

JUDGE PARDEE has enjoined Finlay & Brunswig, of New Orleans, from selling their bromidia, an imitation of the well known preparation of Battle & Co.

DR SCHWEINITZ reports persistent hemorrhage from the conjunctiva of a new-born infant following the instillation of a solution of nitrate of silver, 2 to 4 per cent. The hemorrhage continued for three days.

THE JOURNAL OF GYNECOLOGY makes its appearance as a neat monthly of 64 pages, edited by Charles N. Smith, M.D., of Toledo, Ohio. The price is $1.50 per annum. In the first number appear papers by Drs. Mulheron, Ricketts, Sprague and Rosenwasser.

The Mississippi Valley Medical Association will hold its seventeenth annual session at St. Louis, Wednesday, Thursday and Friday, October 14, 15 and 16, 1891. A large attendance, a valuable programme, and a good time are expected. The members of the medical profession are respectfully invited to attend.

BREEDING BACTERIA.—Prof. Koch has been making experiments respecting the influence of sunlight upon the growth of germs. The results are very significant, showing very clearly the important relation of sunlight to health, especially as a disinfectant. We quote a portion of his remarks as follows:

"As to direct sunlight, it has been well known for some years that it kills bacteria with tolerable quickness. I can affirm this as regards tubercle bacilli, which were killed in from a few minutes to some hours, according to the thickness of the layer in which they were exposed to the sunlight. What seems to me, however, to be particularly noteworthy is that even ordinary day-light, if it last long enough, produces the same effect."

At the Cooper Brass Works, No. 442 North Thirteenth street, may be seen samples of water-closets, that have no wood-work or closed spaces about them.

A NEW WAY FOR TRICHINÆ TO INVADE: BOUND RAW PORK ON THE NECK.—"ONEIDA, Kas., March 2.—The child of Anton Rudolph is in a deplorable condition from the effects of binding raw pork on its neck. The little one was suffering from a sore throat and the parents bound it with a piece of bacon which was afiected with trichinæ. From a slight abrasion on the child's neck a fearful sore developed, which has spread around the neck and over the breast. The attending physician pronounces it a trichinous affection."

The above has been going the round of the dailies. It shows how ignorant a physician can be. Trichinæ cannot invade by that way; they must first become free, then copulate, then produce young. It is the embryo that invades.

WEEKLY Report of Interments in Philadelphia, from April 18 to April 25, 1891:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess	2	3	Hemorrhage	2	1
Alcoholism	1		Homicide	1	
Apoplexy	6		Inanition		8
Asphyxia		1	Influenza	13	2
Aneurism of the aorta		1	Inflammation brain	3	16
Bright's disease	8	1	" bronchi	9	7
Cancer	4		" kidneys	4	2
Casualties	3		" larynx	1	
Cerebro-spinal meningitis		2	" liver	1	
Congestion of the brain		5	" lungs	33	23
" " lungs		2	" peritoneum	5	2
Cholera infantum		8	" pleura	2	1
Cirrhosis of the liver	1		" s. & bowels	5	4
Consumption of the lungs	49	6	Jaundice	1	
Convulsions	1	27	Leucocythemia	1	
Croup		8	Marasmus		16
Cyanosis		5	Neuralgia, heart	1	
Debility	2	2	Obstruction of the bowels	3	
Diarrhœa	3	2	Old age	22	
Diphtheria		9	Ossification of the heart	1	
Disease of the heart	23	2	Paralysis	10	
Drowned	3		Rheumatism		2
Dropsy		1	Sclerosis, spinal	1	
Dysentery	1		Septicæmia		1
Empyema	1		Small-pox		1
Erysipelas		1	Softening of the brain	1	
Enlargement of the spleen	1		Stenosis of the heart	1	
Extra-uterine fœtation	1		Suicide	3	1
Emphysema	1	1	Teething		4
Fatty degeneration of the heart	3		Tetanus		1
Fever, malarial		1	Uræmia	8	
" scarlet		8	Whooping cough		2
" typhoid	19	11	Total	267	201
Gangrene	2				

ARCOT is not and will not be a competitor for the *Association Journal*, so Washington or Chicago need not be the least bit alarmed. Still it has some advantages which would go far toward making it a success not enumerated by our distinguished Pittsburgh contemporary. In the first place, there would be no local cliques to intermeddle with its management. Second, it could be published here at 30 per cent. less cost to the Association than it has cost heretofore. Third, its editorial staff would have the advantage of an unlimited and uncontaminated supply of oxygen, which is said to be superior to coal smoke as a cerebral stimulant, and would be very handy to enable them to form definite opinions on questions that might from time to time arise.

—*The Country Doctor.*

DISPENSING ON BOARD SHIP.—Curious yarns are spun about the method of dispensing followed by divers captains on deep water. The sea lawyer usually found in a ship's forecastle fondly asserts that each bottle of the medicine chest bears a distinguishing number, and upon this foundation proceeds to build the following story, which is redolent of the salt sea: An illiterate shipmaster, having consulted his book of medical instructions, found that a strong dose from number six bottle was the proper remedy for a sick sailor standing before him. Number six, however, had been in great request during the passage, and not a drop remained. For a moment the amateur doctor was at a loss. An inspiration opportunely caused his corrugated brow to smoothen. He mixed together portions from bottles number two and number four, on the strictly arithmetical principal that two and four make six! Deponent sayeth not what effect, if any, the dreadful decoction had upon the seaman. Another story tells equally against the sister service. It is related that a lieutenant, in command of one of Her Majesty's gunboats, deemed the responsibility of the charge of a medicine chest too much for him. Immediately she was off soundings the gallant officer mustered all hands, and divided the contents of the chest equally, so that each had "his whack and na mair."

WE would like to see more made of the natural summer advantages of the Maritime Provinces as health and pleasure resorts for Americans and our Upper Canadian compatriots. The summer temperature of these provinces is cooler than that of the States and of Western Canada, and with the unsurpassed natural beauty of many places, and the surrounding bathing and boating facilities, and means of pleasant out-door recreation generally, we believe that half a dozen sanatorium hotels could be filled. The advantages of many beautiful places in New Brunswick, of the suburbs of Charlottetown, of the Digby Basin, Cape Breton, and other places in Nova Scotia, need only to be boomed to be made more and more use of.—*Manit. Med. News.*

VACCINATION IN THE PUNJAB.—Dr. Dyson, Deputy Sanitary Commissioner of the Punjab, is carrying out some interesting experiments at Amritsar in connection with vaccination and the transmission of lymph. The Sanitary Commissioner of Madras has discovered that lymph is capable of being kept for a long period if mixed in a particular way with lanoline. At present lymph, as taken from the vesicles, cannot be kept for more than a couple of days. Dr. Dyson is not only testing the Madras experiment, but is trying to improve on it; and it is quite likely that the barbarous system of vaccinating from arm to arm will be entirely abolished; and, moreover, the objections that some orthodox Hindus have to the use of lymph direct from the calf will also be removed, by doing away with calf lymph and substituting for it that obtained from lambs and donkeys.

—*Ind. Med. Gazette.*

EXTRACT from Regent's record, University of Nebraska, April 8, 1891:

WHEREAS, The live stock interests of this State, represented by a special committee, and otherwise, request and urge the renewal of investigations of diseases of domestic animals, and that Dr. F. S. Billings, or some person of equal earnestness and ability, be appointed to conduct and carry on such investigations.

AND WHEREAS, This Board is convinced of the importance of said measure, and the magnitude of property interests involved; now therefore be it

Resolved, That this Board take steps to renew at the earliest practicable moment such investigations; that Dr. F. S. Billings be employed for a period of one year from July 1, 1891, to conduct said investigations under the authority and direction of this Board; that for the purpose of covering the cost of said proposed investigations there is hereby appropriated from the Hatch Experiment Station fund, so-called, for the year commencing July 1, 1891, the sum of $10,050.00, to be applied as follows:

Salary of Dr. Billings	$3,600 00
Salary of assistant	1,200 00
Salary of chemist	2,000 00
Fitting up building	750 00
Laboratory equipment	500 00
Incidental expenses	2,000 00
Total	$10,050 00

That payment of salaries be made quarterly, or monthly, if practicable, and that other expenditures contemplated be covered by duly approved vouchers, as are other obligations of the Experiment Station and the University.

Resolved, That the Fine Stock Breeders' Association be and are hereby requested to appoint a conference committee of not less than three prominent and experienced live stock men, who shall observe, suggest and recommend concerning experiments and investigations, and the character of the work of the investigator selected, and meet from time to time with the Board and confer thereon, and also use their influence through the State to advance and promote the service hereby contemplated.

Adopted. A true copy.

J. S. DALES,
Secretary of the Board of Regents, University of Nebraska.

Notes and Items.

A FAIR DIVISION OF LABOR.

I'm going into partnership
With a lovely young M.D.,
She brought me safely through the grip,
And now she'll marry me.
She'll keep her practice as before,
She's wise in everything;
And as for me—I'll tend the door
And do the marketing!

—*Cleveland Med. Gazette.*

WE had the honor of first introducing the merits of clam juice to Philadelphia physicians. Since that time it has become a favorite article for the diet of invalids, and is now employed by thousands. Burnham's clam juice is to be had at any of the larger pharmacies, at the soda fountains. To those who are affected with insomnia, or who arise in the morning unrefreshed, we would recommend a cup of hot milk with clam juice to be taken just before going to bed.

"DOCTOR," said little Emily, "do you know that a baby that was fed on elephant's milk gained twenty pounds in one week?"

"Nonsense!" exlaimed the doctor, and then asked: "Whose baby was it?"

"It was the elephant's baby," replied little Emily.

—*Boston Joke.*

NEW YORK

POLYCLINIC

AND

HOSPITAL.

A Clinical School for Graduates in Medicine and Surgery.

DIRECTORS.

Rev. FORDYCE BARKER, M.D., LL.D.
THOMAS ADDIS EMMET, M.D., LL.D.
Prof. T. GAILLARD THOMAS, M.D.
Prof. ALFRED L. LOOMIS, M.D., LL.D.
LEONARD WEBER, M.D.
Hon. EVERETT P. WHEELER.

H. DORMITZER, Esq.
JULIUS HAMMERSLAUGH, Esq.
Hon. B. F. TRACY,
CHARLES COUDERT, Esq.
Rev. THOMAS ARMITAGE, D.D.
W. A. BUTLER, Esq.

WILLIAM T. WARDWELL, Esq.
GEORGE B. GRINNELL, Esq.
Hon. HORACE RUSSELL.
FRANCIS R. RIVES, Esq.
SAMUEL RIKER, Esq.

FACULTY.

JAMES R. LEAMING, M.D., Emeritus-Professor of Diseases of the Chest and Physical Diagnosis; Special Consulting Physician in Chest Diseases to St. Luke's Hospital.

HOWARD B. BRONSON, M.D., Professor of Dermatology; Visiting Dermatologist to the Charity Hospital; Consulting Dermatologist to Bellevue Hospital (Out-door-Department).

A. G. GEISTER, M.D., Professor of Surgery; Visiting Surgeon to the German and Mt. Sinai Hospitals.

V. P. GIBNEY, M.D., Professor of Orthopædic Surgery; Orthopædic Surgeon to the Nursery and Child's Hospital; Surgeon-in-Chief to the Hospital for Ruptured and Crippled.

LANDON CARTER GRAY, M.D., Professor of Diseases of the Mind and Nervous System; Attending Physician to Hospital for Nervous and Mental Diseases, and to St. Mary's Hospital.

EMIL GRUENING, M.D., Professor of Ophthalmology; Visiting Ophthalmologist to Mt. Sinai Hospital, and to the German Hospital.

PAUL F. MUNDÉ, M.D., Professor of Gynecology; Gynecologist to Mt. Sinai Hospital; Consulting Gynecologist to St. Elizabeth's Hospital.

A. E. ROBINSON, M.B., L.R.C.P. and S. (Edin.), Professor of Dermatology; Professor of Normal and Pathological Histology in the Women's Medical College.

DAVID WEBSTER, M.D., Professor of Ophthalmology; Surgeon to the Manhattan Eye and Ear Hospital.

JOHN A. WYETH, M.D., Professor of Surgery; Visiting Surgeon to Mt. Sinai Hospital; Consulting Surgeon to St. Elizabeth's Hospital; Secretary of the Faculty.

W. GILL WYLIE, M.D., Professor of Gynecology; Gynecologist to Bellevue Hospital; President of the Faculty.

R. C. M. PAGE, M.D., Professor of General Medicine and Diseases of the Chest; Physician to St. Elizabeth's Hospital; Attending Physician to the Northwestern Dispensary, Department of Chest Diseases.

D. BRYSON DELAVAN, M.D., Professor of Laryngology and Rhinology; Laryngologist to the Demilt Dispensary.

JOSEPH WILLIAM GLEITSMANN, M.D., Professor of Laryngology and Rhinology; Laryngologist and Otologist to the German Dispensary.

OREN D. POMEROY, M.D., Professor of Otology; Surgeon Manhattan Eye and Ear Hospital; Ophthalmic Surgeon New York Infants' Asylum, and Consulting Surgeon to the Paterson Eye and Ear Infirmary.

HENRY N. HEINEMAN, M.D., Professor of General Medicine and Diseases of the Chest; Attending Physician to Mt. Sinai Hospital.

THOMAS R. POOLEY, M.D., Professor of Ophthalmology; Surgeon-in-Chief of the New Amsterdam Eye and Ear Hospital; Ophthalmic Surgeon to the Sheltering Arms; Consulting Ophthalmologist to St. Bartholomew's Hospital.

B. SACHS, M.D., Professor of Neurology; Consulting Neurologist to the Montefiore Home for Chronic Invalids.

L. EMMETT HOLT, M.D., Professor of Diseases of Children; Visiting Physician to the New York Infant Asylum; Consulting Physician to the Hospital for Ruptured and Crippled.

AUGUST SEIBERT, M.D., Professor of Diseases of Children; Physician to the Children's Department of the German Dispensary.

H. MARION SIMS, M.D., Professor of Gynecology; Gynecologist to St. Elizabeth's Hospital and New York Infant Asylum.

WILLIAM F. FLUHRER, M.D., Professor of Genito-Urinary Surgery Surgeon to Mt. Sinai and Bellevue Hospitals.

HENRY C. COE, M.D., M.R.C.S. (Eng.), Professor of Gynecology; Attending Surgeon to New York Cancer Hospital; Assistant Surgeon to Woman's Hospital; Obstetric Surgeon to Maternity Hospital; Obstetrician to New York Infant Asylum; Gynecologist to Presbyterian Hospital (Out-door-Department).

REGULAR SESSION OF 1890-91, OPENED SEPTEMBER 15, 1890.

For further information and for catalogue, address

JOHN A. WYETH, M.D., Secretary of the Faculty

Or, WILLIS O. DAVIS, Clerk, 214, 216 and 218 East 34th St., New York City.

AUT NUTRIMENTUM AUT NULLUM.

AS THE importance of nutrition in the treatment of disease is being more clearly recognized, and the science of dietetics has come to occupy a position quite as conspicuous as that of therapeutics, it is with special pleasure that we are able to bring to the attention of the Medical Profession Mosquera's Beef-Meal and Beef-Cacao.

THE peculiar features of merit possessed by these products may be epitomized as follows:

THEY are absolutely representative of fresh beef, containing all its constituents, soluble and insoluble.

NEARLY fifty per cent. of the substance of Beef-Meal is predigested and ready for immediate assimilation.

THEY are perfectly palatable, and may be administered in a variety of forms, thus avoiding monotony in diet.

THEY are absolutely permanent, and are not subject to the attack of insects, nor will they putrify under the most trying conditions.

Send for full descriptive literature and samples. They will interest you.

MANUFACTURED BY

THE MOSQUERA-JULA FOOD CO.,

PARKE, DAVIS & CO., Sole Agents,

DETROIT AND NEW YORK.